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 October 31, 2016.
OR
☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 for the transition period from _____ to _____.
Commission File Number 001-13543

MGC DIAGNOSTICS CORPORATION

(Exact name of registrant as specified in its charter)

Minnesota	**41-1579150**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)

350 Oak Grove Parkway, Saint Paul, Minnesota 55127-8599
(Address of principal executive offices)
Registrant's telephone number, including area code: (**651) 484-4874**

Securities registered pursuant to Section 12(b) of the Act: **Common Stock, $0.10 Par Value**

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

Name of Exchange on Which Registered: **NASDAQ Capital Market**

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

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

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

Large Accelerated Filer ☐ Accelerated Filer ☐ Non-Accelerated Filer ☐ Smaller Reporting Company ☒

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

The aggregate value of the Company's Common Stock held by non-affiliates of the Company was approximately $23,639,000 as of April 30, 2016, the last day of the Company's most recently completed second fiscal quarter, when the last reported sales price was $5.41 per share.

As of January 25, 2017, the Company had outstanding 4,387,643 shares of Common Stock, $0.10 par value.

Documents Incorporated by Reference: Portions of the Company's Proxy Statement for its Annual Meeting of Shareholders to be held on March 22, 2017 are incorporated by reference into Part III of this Form 10-K.

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PART I

Item 1. Business.

Unless the context requires otherwise, references in this Form 10-K to "MGC" or "MGC Diagnostics" mean MGC Diagnostics Corporation, while references to "Medical Graphics" refer to Medical Graphics Corporation, a wholly-owned subsidiary of MGC Diagnostics Corporation and references to "Medisoft" refer to Medisoft SA, a wholly-owned subsidiary of MGC Diagnostics Corporation, and its subsidiaries. MGC Diagnostics, Medical Graphics and Medisoft are collectively referred to as the "Company."

Overview

MGC Diagnostics Corporation (the "Company") is a global medical technology company dedicated to cardiorespiratory health solutions. The Company designs, markets and sells non-invasive cardiorespiratory diagnostic products through its Medical Graphics Corporation subsidiary under the MGC Diagnostics brand and trade name and through its Medisoft subsidiary under the Medisoft brand and trade name. MGC acquired Medisoft on August 1, 2014. The Company's product portfolio provides solutions for disease detection, integrated care, and wellness across the cardiorespiratory healthcare spectrum. The Company sells its products internationally through distributors and in the United States through a direct sales force targeting specialists located in hospitals, university-based medical centers, medical clinics, physician offices, pharmaceutical companies, medical device manufacturers, and clinical research organizations ("CROs"). The Company's cardiorespiratory diagnostic products measure flow and respiratory pressures and, in most cases analyze the inhaled and exhaled gases such as oxygen and carbon dioxide. The Company operates in a single industry segment: the research, development, manufacture and marketing of non-invasive cardiorespiratory diagnostic products.

The Company had revenues of $40.0 million and operating loss of $2.6 million for the year ended October 31, 2016. The operating loss included several significant items, including:

(i) charges of $3.3 million and $0.3 for impairment of goodwill and certain intangible assets, respectively, recorded upon the acquisition of Medisoft in fiscal 2014;

(ii) $1.0 million of combined charges for legal settlement costs and obsolete inventory related to the Company's 2014 strategic initiative to enter the sleep diagnostics market; and

(iii) $0.7 million of charges for impairment of excess inventory related to the Company's strategic initiatives to distribute the Resmon PRO FOT device.

Domestic product sales and service revenue accounted for 77% of fiscal 2016 revenue and international product sales accounted for the remaining 23%. Revenue consists of equipment, supply and accessory sales as well as service revenue. Equipment, supply and accessory sales reflect sales of non-invasive cardiorespiratory diagnostic equipment and aftermarket sales of peripherals, software, supplies and additional training. Service revenue consists of revenues from extended service contracts and non-warranty services.

General

MGC Diagnostics designs and markets non-invasive cardiorespiratory diagnostic products that have a wide range of applications within cardiorespiratory healthcare.

Healthcare professionals use cardiorespiratory diagnostic products to assess the cause and degree of severity for shortness of breath and lung diseases such as asthma, emphysema and bronchitis (each are forms of Chronic Obstructive Pulmonary Disease or "COPD"), and to manage related treatment. Through breath-by-breath analysis, some of the Company's cardiorespiratory diagnostic products measure the level of disability and functional capacity to help physicians diagnose and treat heart diseases such as heart failure and coronary disease. The Company also sells its cardiorespiratory diagnostic products and services to clinical research customers for use in drug and device clinical trials both in the United States and internationally. Other health professionals use the Company's cardiorespiratory diagnostic products to measure calorie consumption and to prescribe safe and effective exercise in rehabilitation, obesity management, general fitness, and athletic performance. These applications operate by measuring air flow and the concentrations of inhaled and exhaled gases such as oxygen and carbon dioxide while a person is at rest, or exercising on a bike or treadmill. This assessment of gases and air flow can also be used to determine nutritional requirements of critically ill patients in a hospital intensive care unit ("ICU") and cardiac catheterization laboratory.

Primary products for each of Medical Graphics and Medisoft include pulmonary function ("PFT") and gas exchange ("GX") testing products, as discussed below in "Pulmonary Function Products" and "Gas Exchange Testing Products." All MGC Diagnostics products are designed to be simple and easy to use while providing the flexibility to address specific needs of hospitals, clinics and physician offices. MGC Diagnostics' products, except for some original equipment manufacturer ("OEM") components, are generally sold with a personal computer, color monitor, printer and other peripherals. These products increasingly include networked and internet technologies that offer remote processing applications and communications.

Seasonality

The Company experiences some seasonality in its revenues, with the fourth quarter of its fiscal year traditionally being its strongest quarter. The Company experiences variability in the other three quarters due to a number of factors, including customer budget cycles, product introductions, Company sales incentive programs, general economic conditions and the timing of customer orders. See "Management's Discussion and Analysis of Financial Condition and Results of Operations-Seasonality."

Pulmonary Function Products

Pulmonary function testing (PFT) equipment and techniques have come into widespread use and standardization over the past 30 years. Advances in computer technology and miniaturization have aided in the development of devices that have become portable and user-friendly through sophisticated software.

Health care professionals use diagnostic pulmonary function assessment to diagnose lung diseases such as asthma or COPD; the majority of assessments are performed for diagnostic purposes or to monitor patient response to therapy. Pulmonary function testing is an important tool in the management of respiratory diseases including asthma, chronic bronchitis, cystic fibrosis, emphysema, and restrictive pulmonary disease, among others. The majority of pulmonary function assessments are performed on patients with suspected pulmonary disease; however, there are non-pulmonary applications for cardiology, chemotherapy and neuromuscular analysis. Pulmonary function applications range from (i) basic lung function screening, to (ii) pre-operative surgical evaluations and post-operative assessment of heart and lung transplant patients, to (iii) disability assessment from occupational exposures, and to (iv) documenting responses to a variety of therapies.

These pulmonary function products fall into four major product categories: (i) Spirometry, (ii) Complete Pulmonary Function, (iii) Body Plethysmography and (iv) Specialty Products.

- ***Spirometry.*** Spirometry is a relatively simple, painless, and inexpensive method of assessing pulmonary function. In this procedure, the patient breathes into a spirometer, an instrument that measures and records (i) the volume of exhaled or "expired" air and (ii) the airflow rate for a specific time period. Spirometry provides measurement, lung capacity and mechanical properties of airflow. Due to the simplicity of testing and the availability of portable equipment, spirometry is widely used in both inpatient and outpatient settings. MGC Diagnostics markets the **Medical Graphics CPF S/D USB™** and the **Medisoft Micro 5000** and **Micro 6000** spirometers. The spirometer is a product platform that can be upgraded to complete a pulmonary function or cardiopulmonary exercise system.

- ***Complete Pulmonary Function.*** Pulmonary function testing equipment measures and analyzes breathing to evaluate the condition of the heart, lungs, and metabolism. The technique is used to diagnose and manage numerous pulmonary conditions. Although diagnostic spirometry is adequate for basic pulmonary function screening, complete pulmonary function analysis is required to diagnose the specific cause of lung disease. MGC Diagnostics markets **Medical Graphics Ultima PF Series™**, **Medisoft SpiroAir** and **Medisoft HypAir** as complete pulmonary function systems. These complete pulmonary function systems, available as a desktop or cart-mounted configuration, perform spirometry, non-invasive measurement of an individual's total lung capacity, respiratory mechanics and diffusing capacity, and the oxygen transfer across the lungs into and out of the bloodstream. In fiscal 2016, the Company received Federal Drug Administration approval for the **Resmon PRO FOT** (Forced Oscillation Technique) device, adding to this range of equipment.

- ***Body Plethysmograph.*** Body plethysmographs consist of an airtight, transparent patient cabin, an adjustable support arm, pressure transducers for measuring mouth and cabin pressure and a computer. Many devices also incorporate diffusing capacity and lung volume by nitrogen washout, which enhances the scope of use. The patient sits inside the enclosure and undergoes diagnostic pulmonary function tests. MGC Diagnostics markets the **Medical Graphics Platinum Elite** and the **Medisoft BodyBox Series**, each of which are designed to minimize patient anxiety and discomfort while maximizing accuracy. These systems' designs optimize patient comfort within a clear-view acrylic enclosure and allow testing of a broad population, including pediatric patients and individuals in wheelchairs.

The Medical Graphics **Platinum Elite** is available in two primary configurations:

- ***Platinum Elite DL.*** The **Platinum Elite DL™** body plethysmograph performs spirometry, measures the total volume of air in the lung and resistance to airflow in the airways of the person's lungs. It also performs the diffusion test described below.

- ***Platinum Elite DX.*** The **Platinum Elite DX™** body plethysmograph performs all the same tests as a Platinum Elite DL, and also performs the nitrogen washout test.

The Medisoft BodyBox Series is available in three primary configurations:

- ***BodyBox Standard, XL and Pediatric Models.*** The **Medisoft BodyBox** models differ primarily in physical size designed to accommodate specific needs of specialized healthcare professionals performing testing in diverse settings.

- The **Medisoft BodyBox** testing options are highly configurable allowing the modular addition of multiple diffusion configuration options, nitrogen washout and lung mechanic options.

- ***Specialty Products.*** Specialty diagnostic pulmonary function testing products include the measurement of exhaled biomarkers and complex cardiorespiratory neuro-mechanics. MGC Diagnostics markets the Medisoft **FeNO**, **FeNO+** and **HypAir Muscle Study Systems** using licensed technologies.

  - ***Medisoft FeNO and FeNO+.*** Patients with allergic airway inflammation generally have higher than normal levels of nitric oxide (NO) in their exhaled breath. By measuring the concentration of NO in an exhaled breath (fractional exhaled nitric oxide or FeNO), clinicians can evaluate allergic airway inflammation in patients with underlying asthma. The **Medisoft FeNO** and **FeNO+ Nasal** devices are specifically designed for use in specialty laboratories by healthcare professionals in the evaluation of airway inflammation.

  - ***Medisoft HypAir Muscle Study.*** Patients with complex neuromuscular disease may be evaluated by studying muscle and neural drive stimuli to breathing. The **Medisoft HypAir Muscle Study** system measures the work of breathing though a series of pressure sensors and external neural stimulators.

In fiscal 2012, the Company introduced modified versions of the **Ultima PF**, **Platinum Elite DL** and **Platinum Elite DX**, each of which includes real time diffusion ("RTD") technology and has now discontinued the production of its historical Gas Chromatography.

All MGC Diagnostics' Medical Graphics pulmonary function products use the proprietary **preVent® flow sensor**, a disposable/cleanable flow sensor that eliminates concern over the transmission of infectious diseases. The **preVent flow sensor** gives all Medical Graphics products the capability to perform spirometry testing to measure the flow rates, capacities and mechanical properties of the lung. Medical Graphics pulmonary function products use a proprietary "expert system," **Pulmonary Consult™**, to aid physicians in the interpretation of test results.

MGC Diagnostics pulmonary function products include applications that:

- enable the early detection of lung disease;
- evaluate the effect of medication;
- monitor patients with chronic disease;
- diagnose lung diseases (i.e. asthma, emphysema and bronchitis/COPD);
- manage treatment;
- assess the surgical risk of lung transplant and lung reduction candidates; and
- evaluate the impact of diseases such as neuromuscular disease on breathing.

MGC Diagnostics' pulmonary function products' ease of use, infection control features, compact, lightweight design, connectivity and mobility options attract a wide variety of customers, including pulmonary laboratories in hospitals, clinics, physician offices, occupational medicine clinics, asthma/allergy practices, and clinical research centers worldwide.

Gas Exchange Testing Products

MGC Diagnostics' cardiopulmonary exercise ("CPX" or "CPET") testing products measure functional capacity, fitness or conditioning levels, evaluate prognostic criteria for surgical procedures as well as help physicians diagnose heart and lung diseases. Cardiopulmonary exercise testing provides objective, reliable, and quantitative assessment of the cardiovascular and respiratory responses to varying external workloads. These products operate by measuring the volume of air and concentrations of oxygen and carbon dioxide as they enter and leave the lungs while an individual exercises on a machine such as a bike or treadmill. These tests may be augmented by various types of monitoring, including electrocardiogram ("ECG"), blood pressure, and pulse oximetry.

Cardiopulmonary exercise testing is useful (i) to differentiate between cardiac and pulmonary problems, (ii) to diagnose exercise-induced asthma, (iii) to assess preoperative risk, (iv) to determine disability and response to therapeutic interventions, (v) to determine the functional status in heart failure, and (vi) to develop exercise programs.

MGC Diagnostics products can also perform measurements of individuals at rest to determine nutritional requirements of critically ill patients or individuals wishing to assess the number of calories burned per day, which is termed "energy expenditure." This measurement is known as a "metabolic assessment" and is marketed by the Company as the indirect calorimetry option for many of its gas exchange products. Configurations combining the cardiopulmonary exercise testing, energy expenditure and pulmonary function applications are marketed under both MGC Diagnostics' Medical Graphics and Medisoft products.

The Medical Graphics **Ultima Series** is sold in the following different configurations**:**

- The ***Ultima CPX metabolic stress testing system*** is a basic exercise testing system that measures an individual's fitness level while exercising and measures an individual's ability to perform work (functional capacity) or activities of daily living. The Ultima CPX can also be used in conjunction with other manufacturers' stand-alone ECG products that measure heart functions.

- The ***Ultima CardiO$_2$ gas exchange analysis system*** configuration adds an integrated 12-lead electrocardiogram stress option to the Ultima CPX.

- The ***CCM Express indirect calorimeter*** is a portable, self-contained metabolic assessment system that measures the nutritional requirements of a patient at rest and during mechanical ventilation in the critical care unit.

- The **Face Tent Fan** is an option for the above systems and offered where open-circuit indirect calorimetry is a desired testing methodology.

MGC Diagnostics' **Medisoft Ergocard Series** is sold in the following configurations**:**

- The ***Ergocard Clinical*** is a basic exercise testing system that measures an individual's fitness level while exercising and measures an individual's ability to perform work (functional capacity) or activities of daily living. The Ergocard Clinical can also be used in conjunction with other manufacturers' stand-alone ECG products that measure heart functions.
- The ***Ergocard Professional gas exchange analysis system*** configuration adds an integrated 12-lead electrocardiogram stress option to the Ergocard Clinical.
- The ***Ergocard ECG*** is a compact lightweight PC electrocardiograph that measures resting and exercise ECG and provides automated arrhythmia detection.

Applications for MGC Diagnostics' Medical Graphics Ultima CPX, and CCM Express and Medisoft Ergocard Professional, Ergocard Clinical and Ergocard ECG exercise and metabolic products include:

- screening for early signs of cardiac and pulmonary dysfunction through differential diagnosis (distinguishing between cardiovascular and pulmonary disease),
- evaluating the efficacy of prescribed therapy, and
- determining appropriate nutritional support requirements.

Customers currently include hospital pulmonary and stress testing laboratories, cardiology and pulmonary office-based clinics, critical care units, cardiac rehabilitation units and weight management clinics.

Cycle Ergometers and Treadmills

The Company offers several models of exercise devices that provide healthcare professionals and patients a tool for improved diagnosis and more successful outcomes in clinical rehabilitation. A cycle ergometer is a specially-designed stationary exercise bicycle that can operate at a broad spectrum of resistance levels while a treadmill is a motorized walking/running surface that can operate at different inclines to produce a range of work levels. These ergometers and treadmills can be used and controlled by the Company's cardiopulmonary exercise testing products.

Through MGC Diagnostics' Medical Graphics business, the Company sells non-proprietary cycle ergometers and treadmills manufactured by best-in-class industry partners used in diagnostic, rehabilitation and sports medicine applications. Through MGC Diagnostics' Medisoft business, the Company manufactures and sells three models of treadmills – the **Clinical 870A, Sport 870S** and **Athlete 870C.**

Electronic Medical Records Interfaces

Both Medical Graphics and Medisoft sell HL7 interface technology software, installation and support for data communication interfaces to achieve interoperability between the Company's products and the electronic medical records systems used in hospital and clinical settings. Electronic medical record systems are designed to facilitate more complete, rapid transmission of patient and test results between the patient care management systems and equipment. These patient information management systems are intended to improve quality of care and reduce operating costs through improved accuracy, timeliness and efficiency of records management.

Competition

The industry for companies selling cardiorespiratory diagnostic products is mature and competitive. There are a number of companies that currently offer, or are in the process of developing, products that compete with products offered by MGC Diagnostics. The Company's competitors include both large and small medical companies, some of which have greater financial and technical resources and broader product lines. Vyaire (a successor to the former CareFusion Respiratory Solutions entity), nSpire Health, Cosmed, Ganshorn, ndd and Morgan Scientific are the Company's principal competitors. Morgan Scientific markets select Medisoft hardware within the United States. The Company believes that the primary competitive factors in its markets are product features, customer service, price, quality, product performance, market reputation, breadth of product offerings and effectiveness of sales and marketing efforts. The Company believes that its product quality, product performance, market reputation and customer service are true differentiators that will contribute to future growth.

The Company believes price competition will continue to be an important factor in customer purchasing patterns as a result of healthcare cost containment pressures in both the domestic and international health care industry. Domestically, a number of industry participants and associations increasingly rely on group purchasing organizations ("GPOs") in the effort to contain healthcare costs. The Company became a qualified provider for several of the larger domestic GPOs to ensure the Company's continued access to its market and to efficiently increase its sales to the expanded numbers of companies using these buying groups. Our relationship with these GPOs is continuing and can provide MGC with additional exposure to customers whose relationships with the GPO precluded past relationships with them. As the numbers of purchasers aligning with these GPOs have increased, the percentage of Company revenues attributable to GPO sales has increased as well.

Any product developed by the Company that gains regulatory approval must compete for market acceptance and market share. The timing of market introduction of competitive products could adversely affect the competitiveness of the Company's products. Accordingly, the relative speeds with which the Company can develop products, complete clinical testing and the regulatory approval process and supply commercial quantities of the product to the market are important competitive factors. The Company expects that competition will also be based on many factors, including device size and weight, longevity, ease of programmability, ability to provide diagnostic capability, product reliability, physician familiarity with the device, patent protection, sales and marketing capability, third-party reimbursement policies, reputation and price. The Company has protected its products with various patents and trademarks when possible.

Manufacturing

MGC's Medical Graphics subsidiary currently designs and assembles all major sensor components of its cardiopulmonary diagnostic products including its data acquisition systems, flow measurement sensors, gas sample lines, gas chromatograph, nitrogen, carbon dioxide, oxygen and other gas analyzers. The Company purchases Medical Graphics-designed sheet metal, electrical components, printed circuit boards and some measurement devices from outside vendors and these components are tested, assembled and packaged by Medical Graphics personnel into fully integrated systems.

MGC's Medisoft subsidiary currently designs, fabricates and assembles most major sensor components of its cardiopulmonary diagnostic products including its data acquisition systems, flow measurement sensors, gas sample lines, nitrogen, carbon dioxide, oxygen and other gas analyzers. Medisoft designs and fabricates sheet metal, electrical components, and printed circuit boards at its Belgium facility. Medisoft purchases some measurement devices from outside vendors; Medisoft personnel then test, assemble and package these components into fully integrated systems.

The Company also acquires general-purpose computers, monitors and printers from a variety of sources and integrates its proprietary software modules into these products. Medical Graphics acquires its cycle ergometers and treadmills from third parties, while Medisoft manufactures its treadmills and acquires ergometers from third parties.

The Company's Quality Management System is certified to the requirements of ISO 13485:2003, Canadian Medical Device Regulations Part 1, and European Union Medical Device Directive Annex II regarding the Development and Production of Cardiorespiratory devices. See "Foreign Government Regulation." below for additional discussion of the Company's ISO 13485:2003 certification.

Marketing and Distribution

MGC Diagnostics' Medical Graphics subsidiary markets its products in the United States through its direct sales force that sells into hospitals, university-based medical centers, medical clinics, physician offices, pharmaceutical companies, medical device manufacturers and clinical research organizations. Medical Graphics markets its products to a wide range of customers that use its products and services across a broad market continuum. Each Medical Graphics domestic salesperson is responsible for a specific geographic area and is compensated with a base salary, expense reimbursement and a sales commission plan.

Outside the United States, Medical Graphics markets its products through a network of independent distributors. During fiscal 2016, Medical Graphics used 57 distributors to sell its products into approximately 49 countries. These distributors typically carry a select inventory of Medical Graphics products and sell those products in specific geographic areas, generally on an exclusive basis. International revenues accounted for 12.8% and 17.7% of total Medical Graphics revenue for the years ended October 31, 2016 and 2015, respectively. All of Medical Graphics' international sales are made on a United States dollar-denominated basis to distributors.

MGC Diagnostics' Medisoft subsidiary markets its products in France, Belgium, the United Kingdom and Italy through its direct sales force that sells into hospitals, university-based medical centers, medical clinics, physician offices, pharmaceutical companies, medical device manufacturers and clinical research organizations. Medisoft markets its products to a wide range of customers that use its products and services across a broad market continuum.

Outside the direct markets of France and Belgium, Medisoft markets its products through a network of independent distributors. During fiscal 2016, Medisoft used approximately 20 distributors to sell its products into approximately 61 countries. These distributors typically carry a select inventory of Medisoft products and sell those products in specific geographic areas, generally on an exclusive basis. Revenues outside of Belgium accounted for 88.9% of total Medisoft revenue for fiscal 2016. All of Medisoft's international sales are made on a Euro-denominated basis to distributors.

International sales involve certain risks not ordinarily associated with domestic business, including fluctuations in the purchasing power of local currencies, reliance on distributors and country-specific policies and procedures. Medical Graphics sells all its products on a dollar-denominated basis while Medisoft sells all its products on a Euro-dominated basis. As a result, although neither subsidiary has direct exposure to currency exchange rates risk, changes in exchange rates affect the relative competitiveness of the Company's products and services in various markets.

MGC Diagnostics executes multiple sales and marketing strategies both domestically and internationally. The Company's most successful sales and marketing tactics include product demonstrations that emphasize technological capabilities and advantages, breadth of services and unmatched customer support. In addition to on-site product demonstrations, the Company annually attends and hosts booth displays at various industry-specific meetings and trade shows around the world. At these events, potential customers/clients have the ability to see and experience the unique features our products offer. Through these global events, the Company gains exposure to pulmonologists, cardiologists, respiratory therapists, allergy physicians, exercise physiologists, sports medicine professionals, personal trainers and exercise enthusiasts.

Other Company marketing initiatives include educational seminars, print advertisements, direct mail, telemarketing and e-marketing campaigns through its websites www.mgcdiagnostics.com and www.medisoft.be. Group Purchasing Organizations ("GPOs") have become increasingly present in our market as hospitals work to streamline their supply chain. Vendors can become accredited by the GPOs, which can facilitate the selling process. The Company has a relationship with all major GPOs, including Amerinet, HealthTrust, Premier Purchasing, Vizient, and the Government Services Administration ("GSA"). Sales associated with GPO relationships were $20.5 million and $16.1 million in fiscal 2016 and 2015, respectively.

Research and Development

In fiscal 2016, MGC Diagnostics continued to develop new products and implemented product improvements designed to enhance product reliability and improve margins. The Company's research and development initiatives are targeted for hospitals, clinics and physician's offices. An integral component of the Company's future growth strategy is the development and introduction of additional new products and complementary software.

Research and development expenses were $2.7 million and $2.9 million for the years ended October 31, 2016 and 2015, respectively. Fiscal 2016 and 2015 expenditures included costs of the Company's initiative to migrate its products' operating software to a next-generation platform that includes added functionality and flexibility, providing the foundation for a future product pipeline of new integrated patient care and potential consumer health and disease management programs.

In addition to research and development amounts expensed, the Company's fiscal 2016 and 2015 internal investments included costs that were capitalized and will be amortized as the Company completes its software development and puts the products into service. See Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations-Research and Development.

Intellectual Property

Patents and trademarks are critical in the medical device industry. The Company believes strongly in protecting its intellectual property and has a long history of obtaining patents, when available, in connection with its research and product development programs. The Company also relies upon trade secrets and proprietary know-how.

The Company relies on a combination of patent, trademark and trade secret laws to establish proprietary rights in its products. The Company's Medical Graphics subsidiary currently holds six United States patents (with various expirations between 2026 and 2031), with one patent pending and a number of foreign patents with respect to technologies covered by its United States patents. These patents collectively cover the various aspects of MGC Diagnostics' core technologies, ranging from gas analysis, pressure and flow measurement to methods of analyzing cardiorespiratory data and expert system software. The Company's Medisoft subsidiary currently has two patents pending covering diagnostic technologies used in its products. United States patents filed on or after June 8, 1995 have a term of 20 years from the date on which the patent application was filed.

Foreign patents generally expire 20 years after the date of original application, but vary from country to country. MGC Diagnostics intends to aggressively enforce its intellectual property rights and has successfully done so in the past. We cannot ensure, however, that these patents, or any patents that may be issued as a result of existing or future applications, will offer any degree of protection from competitors.

MGC Diagnostics' Medical Graphics subsidiary also owns registered trademarks and has applied for other trademarks in the U.S. and certain foreign countries. MGC Diagnostics owns and actively enforces an array of related copyrights and trademarks. These include: **BreezeConnect™ HL7 interface technology, BreezeSuite WebReview™ physician review software, Platinum Elite™ body plethysmograph, RTD™ real-time diffusion, Ultima™ CardiO2® gas exchange analysis system, Ultima CPX™ metabolic stress testing system and Ultima PF™ pulmonary function system**, as well as various logos.

Although patent and intellectual property disputes in the medical device industry have often been settled through licensing agreements or similar arrangements, costs associated with these arrangements may be substantial and we cannot ensure that necessary licenses would be available to the Company on satisfactory terms, if at all. Accordingly, an adverse determination in a judicial or administrative proceeding or failure to obtain necessary licenses could prevent the Company from manufacturing and selling its products, which would have a material adverse effect on the Company's business, financial condition and results of operation.

The Company seeks to protect its trade secrets and proprietary intellectual property, including know-how, in part, through confidentiality agreements, non-compete agreements and assignment of invention provisions in agreements with employees, consultants and other parties, as well as through contractual exclusivity with certain suppliers. We cannot ensure, however, that these agreements will not be breached, that the Company would have adequate remedies for any breach, or that the Company's trade secrets will not otherwise become known to or independently developed by competitors.

The Company conducts ongoing evaluations of potential infringement of any proprietary rights of third parties by the products the Company intends to market. Regardless of the Company's efforts to evaluate the potential infringement of any proprietary rights of third parties, we cannot ensure that such infringements do not exist or may not arise in the future. There has been substantial litigation regarding patent and other intellectual property rights in the medical device industry. Litigation, which could result in substantial cost to and diversion of effort by the Company, may be necessary to enforce patents issued to or licensed by the Company, to protect trade secrets or know-how owned by the Company, to defend the Company against claimed infringement of the rights of others and to determine the scope and validity of the proprietary rights of others. Adverse determinations in litigation could subject the Company to significant liabilities to third parties or could require the Company to seek licenses from third parties.

Government Regulation.

United States Government Regulations.

Most of the products manufactured by the MGC Diagnostics' Medical Graphics subsidiary are "devices" as defined in the Federal Food, Drug and Cosmetic Act (the "Act") and are subject to the regulatory authority of the Food and Drug Administration ("FDA"), which regulates the manufacture, distribution, related record keeping, labeling and advertising of these devices. The FDA classifies medical devices in commercial distribution into one of three classes, Class I, II or III, following the enactment of the Medical Device Amendments to the Act in May 1976 (the "Amendments"). These classifications are based on the controls necessary to reasonably ensure the safety and efficacy of medical devices.

Many Class I devices have been exempted from pre-market notification requirements by the FDA. The same types of controls the FDA has used on devices since the passage of the Act in 1938 can adequately regulate these products. These "general controls" include provisions related to labeling, producer registration, defect notification, records and reports and good manufacturing practices. The more comprehensive Quality System Regulation ("QSR") has replaced the good manufacturing practice regulation. As noted below, QSRs include implementation of quality assurance programs, written manufacturing specifications and processing procedures, written distribution procedures and record keeping requirements.

Class II devices are products for which the general controls of Class I devices are deemed not sufficient to ensure the safety and effectiveness of the device and thus require special controls. Special controls for Class II devices include performance standards, post-market surveillance, patient registries and the use of FDA guidelines. Standards may include both design and performance requirements.

Class III devices have the most restrictive controls and require pre-market approval by the FDA. Generally, Class III devices are limited to life-sustaining, life-supporting or implantable devices.

All of MGC Diagnostics' Medical Graphics products are Class II devices.

If the Company does not comply with applicable regulatory requirements, including marketing products only for approved uses, it could be subject to fines, injunctions, civil penalties, recall or seizure of products, total or partial suspension of production, refusal of the government to grant pre-market clearance or pre-market approval for products, withdrawal of approvals and criminal prosecution. In addition, changes in existing regulations or adoption of new governmental regulations or policies could prevent or delay regulatory approval of the Company's products or result in increased regulatory costs. Furthermore, once clearance or approval is granted, subsequent modifications to the approved product or manufacturing process may require a new round of clearances or approvals that could require substantial additional clinical data and FDA review.

As Class II devices, the Company's domestic sales of its registered devices became taxable when the Health Care and Education Reconciliation Act of 2010 (in conjunction with the Patient Protection and Affordable Care Act, Public Law 111-152) added section 4191, *Medical Devices* for sales subsequent to December 31, 2012. This excise tax is levied at a rate of 2.3% of the relevant sales price of the products. Effective January 1, 2016, and ending on December 31, 2017, The Consolidated Appropriations Act, 2016, signed into law on December 18, 2015, included a two-year moratorium on the medical device excise tax. Currently legislation is being drafted in both the House of Representatives and Senate to permanently repeal the tax, which if passed is expected to be signed into law by the new administration.

Class II Requirements. Section 510(k) of the Act requires individuals or companies manufacturing medical devices intended for use with humans to file a notice ("510(k) Notification") with the FDA at least 90 days before introducing a product not exempted from notification requirements into the marketplace. The 510(k) Notification must state the class in which the device is classified and the action taken to comply with performance standards or pre-market approval that may be needed if the device is a Class II or Class III device, respectively. Under Section 510(k), a medical device can be marketed if the FDA determines that the device is substantially equivalent to similar devices marketed prior to May 28, 1976. In the past, Medical Graphics has filed notifications with the FDA of its intent to market its products pursuant to Section 510(k) of the Amendments. The FDA subsequently cleared these products for commercial sale and Medical Graphics is now marketing the devices under Section 510(k). The FDA action does not, however, constitute FDA approval of the Company's products or pass upon their safety and effectiveness.

In addition to the requirements described above, the Act requires that all medical device manufacturers and distributors register with the FDA annually and provide the FDA with a list of those medical devices that they distribute commercially. The Act also requires that all manufacturers of medical devices comply with applicable labeling requirements, including Unique Device Identification ("UDI") requirements when applicable, and manufacture devices in accordance with QSRs, which require that companies manufacture their products and maintain their documents in a prescribed manner with respect to manufacturing, testing and quality control.

In addition, these manufacturers are subject to inspection on a routine basis for compliance with the QSRs. The FDA's Medical Device Reporting regulation requires that companies provide information to the FDA on death or serious injuries alleged to have been associated with the use of their products, as well as product malfunctions that would likely cause or contribute to death or serious injury if the malfunction were to recur. The FDA further requires that certain medical devices not cleared with the FDA for marketing in the United States meet specific requirements before they are exported. The FDA has authority to inspect the Company's facilities to ensure compliance with the Act and regulations thereunder. Failure to comply with these regulations could have a material adverse effect on the Company's business, financial condition and results of operations. Medical Graphics is registered as a manufacturer with the FDA and successfully passed its most recent FDA inspection in June 2015.

Foreign Government Regulation.

The Company's products and processes are also subject to regulation similar to that of the FDA in various foreign countries. ISO 13485:2003 certification indicates that a company's development and manufacturing processes comply with standards for quality assurance and manufacturing process control. CE Certification evidences a company's compliance with the requirements of the European Medical Device Directive 93/42/EEC and allows it to affix the "CE Mark" to its products. The CE Mark denotes conformity with the applicable European standards for safety and allows CE marked devices to be placed on the market in all European Union ("EU") countries. Since June 1998, medical devices cannot be sold in EU countries unless they display the CE Mark. MGC Diagnostics' Medical Graphics subsidiary received ISO 13485 certification for its development and manufacturing processes in 1998 and has passed annual surveillance and recertification audits, the most recent of which occurred in June 2016. Medisoft also is ISO 13485 certified. Medical Graphics and Medisoft have achieved CE certification for its primary cardiopulmonary testing products. We cannot ensure, however, that Medical Graphics or Medisoft will be able to obtain regulatory approvals or clearances for our products in foreign countries. In addition to compliance with the ISO 13485 Quality System standard, Medical Graphics' and Medisoft's products and Quality Systems also meet Part I of the Medical Device Requirements for Canada and have obtained device licenses from Health Canada.

Employees

As of January 16, 2017, the Company had 155 full-time employees (114 in Medical Graphics and 41 in Medisoft). No employees are represented by a collective bargaining agreement and the Company has not experienced any work stoppage. Management believes that relations with its employees are good.

Executive Officers of the Registrant

The executive officers of the Company and their ages at January 29, 2017, were as follows:

Todd M. Austin, age 55, was named Chief Executive Officer of MGC Diagnostics Corporation effective June 1, 2014. Austin joined MGC Diagnostics in February 2012 and served as the Company's Executive Vice President – Global Marketing, Engineering and Corporate Strategy until he was named Chief Executive Officer. Austin is a globally recognized clinical and medical device industry expert and leader with extensive experience, spanning more than 20 years, in product development and marketing, strategic planning, business development, profit and loss responsibility, and clinical consulting.

From September 2010 to February 2012, Austin provided clinical, strategic and tactical consulting services to senior management for a number of domestic and international healthcare companies, including KarmelSonix, ERT and MGC Diagnostics Corporation. From July 2006 to September 2010, Austin was Director of Marketing for CareFusion (now Vyaire), a leading, global health care company, where his responsibilities included overall marketing operations for respiratory diagnostic products supporting global sales in excess of $200 million annually, while coordinating product launch planning for more than 10 global markets. Prior to CareFusion Austin served as Vice President – U.S. Sales and Marketing for Zurich, Switzerland-based ndd Medical Technologies, a pulmonary diagnostic company. He also served as Group Product Manager for Yorba Linda, California-based VIASYS Healthcare and Customer/Product Support and Applications Manager for Sensor Medics Corporation. Austin holds a Bachelor of Science degree from Mount Marty College.

Matthew S. Margolies, age 54, was named President of the Company effective June 1, 2014. Margolies joined the Company in May of 2012 and served as MGC Diagnostics Executive Vice President – Global Sales and Service until he was named President. Margolies has built a career of more than 20 years in the respiratory diagnostics industry.

Prior to joining MGC Diagnostics, Margolies was employed by Cardinal Health, where he served as Senior Vice President of Sales and Marketing of the company's Nuclear Pharmacy team from August 2010 through May 2012. Prior to Cardinal Health, Margolies worked with CardioNet, Inc. as Senior Vice President of Sales and Marketing, from January 2009 through August 2010, generating substantial growth in CardioNet's Cardiac Telemetry business. Before CardioNet, Margolies served for four years in a number of positions of increasing responsibility with VIASYS Healthcare, where he ultimately became Division President for the Respiratory Diagnostics group leading the company's Worldwide Respiratory Diagnostics team. In his role with VIASYS he was responsible for the growth in the Respiratory Diagnostics space that was a component of the $1.6 billion acquisition of VIASYS by Cardinal Health (now Vyaire). From 1993-2004, Margolies held Sales and Marketing leadership roles with Covidien Health / Mallinckrodt Imaging. Margolies holds a bachelor's degree in Business Administration/Marketing from Ramapo College of New Jersey.

Wesley W. Winnekins, age 55, became Chief Financial Officer and Chief Risk Officer effective February 1, 2016. Winnekins joined the Company as Executive Vice President, Finance and Corporate Development and Chief Financial Officer on February 1, 2013 and also served as Chief Operating Officer and Chief Financial Officer from June 1, 2014 until January 31, 2016.

Prior to joining the Company, Mr. Winnekins served as Chief Financial Officer of Snap Fitness, Inc., a multi-national franchisor of 24/7 express fitness clubs from February 2011 to October 2012. Prior to that, he was employed by Health Fitness Corporation from February 2001 to December 2010, serving as Executive Vice President, Finance and Operations from March 2010 to December 2010, and as Chief Financial Officer and Treasurer from February 2001 to February 2010. Prior to working at Health Fitness Corporation, Mr. Winnekins served in finance and management capacities for several public and private companies, including health and fitness companies, from October 1987 to February 2001. From May 1985 to October 1987, Mr. Winnekins served in the audit practice at Arthur Andersen. Mr. Winnekins received a Bachelor's in Business Administration with a major in Accounting from Iowa State University and has passed the CPA exam.

Cautionary Note Regarding Forward-looking Statements

The discussions in this Form 10-K in "Business" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" contain forward-looking statements about MGC Diagnostics' future financial results and business prospects that by their nature involve substantial risks and uncertainties. You can identify these statements by the use of words such as "anticipate," "believe," "estimate," "expect," "project," "intend," "plan," "will," "target," and other words and terms of similar meaning in connection with any discussion of future operating or financial performance or business plans or prospects.

Our actual results may differ materially depending on a variety of factors including:

- national and worldwide economic and capital market conditions;
- continuing cost-containment efforts in hospital, clinic, and office markets;
- our ability to obtain revenue growth and operational synergies from our Medisoft SA subsidiary that we acquired on August 1, 2014;
- our ability to complete our software development initiatives and migrate our platforms to a next-generation technology;
- increased foreign-exchange-rate-fluctuation exposure resulting from our acquisition of Medisoft SA and our increased future international operations;
- our ability to remain as qualified providers for group purchasing organizations, ensuring continued access to our market;
- uncertainty or changes in medical reimbursement requirements;

- reinstatement of medical device taxation related to national healthcare reform, including the 2.3% medical device tax, that was suspended for the two years beginning January 1, 2016 and ending December 31, 2017;
- our ability to profitably sell sufficient quantities of our forced oscillation technique ("FOT)" product in the United States;
- our ability to realize the remaining carrying value of our SleepVirtual sleep diagnostics inventory;
- our ability to successfully resolve pending litigation with the Medisoft selling shareholders;
- our ability to successfully operate our business, to convert our past and continuing research and development expenditures into new and improved cardiorespiratory diagnostic products and services and to sell these products and services into existing and new markets;
- our ability to maintain our cost structure at a level that is appropriate to our near to mid-term revenue expectations and that our cost structure will enable us to increase revenues and profitability as opportunities develop;
- our ability to achieve constant margins for our products and consistent and predictable operating expenses in light of variable revenues from our clinical research customers;
- our ability to expand our international revenue through our Medical Graphics and Medisoft distribution partners;
- our ability to successfully defend ourselves from product liability claims related to our cardiorespiratory diagnostic products;
- our ability to defend our existing intellectual property and obtain protection for intellectual property we develop in the future;
- our ability to realize our existing deferred tax assets in domestic and foreign jurisdictions;
- our ability to successfully expand into adjacent non-core product lines in the future without exposing ourselves to significant risk through significant inventory purchase obligations;
- our ability to develop and maintain an effective system of internal controls and procedures and disclosure controls and procedures; and
- our dependence on third-party vendors.

These and other factors are summarized below in this Form 10-K under "Risk Factors."

Item 1A. Risk Factors.

Our results are affected by changes in worldwide economic and capital markets conditions.

We derived 23.5% and 28.1% of our respective fiscal 2016 and 2015 revenues from outside the United States. Our business may be adversely affected by factors in the United States and other countries that are beyond our control, such as downturns in economic activity or labor conditions in a specific country or region.

Our ownership and operation of Medisoft entails ownership of Euro-denominated assets, liabilities, revenues and expenses and Dollar-Euro currency changes have adversely affected our results.

We incurred foreign currency losses of $46,000 and $929,000 in fiscal 2016 and 2015, respectively. In the same two years, we also incurred foreign currency translation gains (losses) of $22,000 and $(149,000), which are reflected in accumulated other comprehensive loss in our consolidated balance sheet. Our business may be adversely affected by Euro and other currency rate fluctuations against the US Dollar.

If we are unable to attain synergies from the acquisition of Medisoft, our sustained profitability may be uncertain.

We have made significant personnel and financial resource commitments for the acquisition and integration of Medisoft. Medisoft incurred losses of $4,510,000 and $999,000 in fiscal 2016 and 2015, respectively. If we are unable to generate revenue growth and operational synergies from our continued efforts, our combined profitability and financial position may continue to be adversely affected.

We own significant inventory of a product that we are selling into the U.S. market for the first time, since only recently receiving FDA clearance.

We have entered into a distribution agreement under which we agreed to purchase and resell third-party products in markets that are adjacent to our core cardiorespiratory diagnostic products.

In 2012, we entered into an agreement with a European company under which we purchased forced oscillation technique (“FOT’) products for resale. As of October 31, 2016, we had FOT inventory with a carrying value of $0.5 million, after incurring impairment charges of $0.7 million in fiscal 2016 results. We have clearance to sell this product in Europe and we received FDA clearance to market and sell this product in the United States late in calendar year 2016, but we cannot ensure that we will be able to market and sell all of the units currently on hand. Although the FOT product is now authorized for sale in a number of countries, if we do not achieve sales levels sufficient to realize the carrying value of this inventory or if we are unable to extend or renew our contract to distribute this product with the manufacturer, we may be required to take an additional impairment charge against this inventory.

We are engaged in the orderly disposal of a sleep diagnostic product.

In March 2014, we entered into an agreement with Neurovirtual USA, Inc. (“Neurovirtual”) under which we agreed to purchase and sell Neurovirtual sleep diagnostics products. At October 31, 2016, we had an inventory of Neurovirtual sleep diagnostic products with a carrying value of $0.2 million after incurring impairment charges of $0.3 million as of October 31, 2016. On June 14, 2016, we settled litigation with Neurovirtual that resulted in the termination of the agreement and allowed us to continue selling this inventory, under full warranty according to the termination agreement. If we are unable to successfully resell the remaining inventory, we may be required to record an additional impairment charge against any remaining inventory.

Failure to achieve and maintain effective internal controls could limit our ability to detect and prevent fraud and thereby adversely affect our business and stock price.

Effective internal controls are necessary for us to provide reliable financial reports. Nevertheless, all internal control systems, no matter how well designed, have inherent limitations. Even those systems determined to be effective can provide only reasonable assurance with respect to the consolidated financial statement preparation and presentation. Our inability to maintain an effective control environment may cause investors to lose confidence in our reported financial information, which could in turn have a material adverse effect on our stock price. The Company, while reviewing its internal controls noted a material weakness. See Item 9A for further details.

We have commenced litigation against the Medisoft selling shareholders.

In November 2015, we commenced litigation in the French-speaking courts of Brussels, Belgium against the Medisoft selling shareholders for violations of representations and warranties in the stock purchase agreement dated as of July 10, 2014 under which we purchased Medisoft. We alleged that these violations resulted in damages to us of approximately €985,400 ($1,084,000). In May 2015, we received payment of €406,700 ($447,000) with respect to these alleged violations pursuant to a bank-guaranteed contractual escrow fund and we have reflected that payment on our books and records. On May 30, 2016, the defendant selling shareholders filed an answer and asserted a counterclaim against us seeking to recover the €406,700 that was paid plus legal costs. We continue to believe the Medisoft selling shareholders are liable to us for violations of representations and warranties in the stock purchase agreement and continue to pursue this matter. We have not accrued any losses related to the litigation and have not accrued any related legal costs that we have not yet incurred. We expect that this litigation process in the Belgian courts may continue until the fall of 2017. Although we believe our claims against the Medisoft selling shareholders have merit, litigation is uncertain and can be expensive, particularly in a foreign jurisdiction. We cannot ensure that we will recover additional amounts against the Medisoft selling shareholders, and if we are unsuccessful, we may be required to return a portion of the payment we received. See Part I, Item 3 Legal Proceedings.

We have capitalized significant costs and expenses related to new software products.

We capitalize costs to develop new software products because these software products are an integral part of our diagnostic medical devices. We begin to capitalize costs related to new software development products once we have achieved technological feasibility and we have completed all research and development for the product's components. We amortize these software costs on a straight-line basis over the estimated useful life of the related product beginning when the product is available for general customer release. See "Intangible Assets, Note 7 of Notes to Financial Statements."

At October 31, 2016, we had net book value for capitalized software development costs of $3.3 million, most of which is related to a new operating software platform for our cardiorespiratory diagnostic products that has not been placed into service. During fiscal 2016, we capitalized an additional $0.7 million of software development costs. During fiscal 2016, we determined that another in-service software product was impaired and incurred a $0.2 million impairment charge. If we determine that any software is impaired in the future, then we will be required to incur a charge against earnings in the amount of the impaired software. We will be submitting a Traditional 510(k) application through an accredited Third Party Reviewer to the FDA for clearance to introduce our new software platform to the market in fiscal 2017. If the FDA delays clearance on our new operating software platform for any reason, thereby delaying our ability to introduce this software in the market, it could have a material adverse effect on our operations, including affecting our future revenues and the carrying value of this software.

Our success depends on our ability to sell our Medical Graphics and Medisoft cardiorespiratory products into our core hospital, clinic and physician office markets.

Our current success depends on our ability to successfully upgrade existing accounts with new products and services, convert competitive accounts and provide billable and warranty services. Our longer term success depends on our ability to sustain new product developments, retain existing customers and increase our global market share.

Our association with domestic Group Purchasing Organizations ("GPOs") may result in reduced gross margins.

Group Purchasing Organizations ("GPOs") are entities through which groups of end-customers of a product act together through an agent to purchase a product from a distributer, supplier or manufacturer. GPOs operate routinely in the healthcare market. Price competition or negotiated lower prices with GPOs may exert downward pressure on prices we are able to charge for our products. We cannot ensure that we will be able to offset any downward price pressure through corresponding cost reductions. Any failure to offset this pressure could have an adverse effect on our business, results of operations and financial condition.

Healthcare policy changes, including national legislation to reform the U.S. healthcare system, may have a material adverse effect on our business.

There have been and continue to be proposals by the federal government, state governments, regulators and third-party payers to control healthcare costs and, more generally, to reform the U.S. healthcare system. The Patient Protection and Affordable Care Act imposed a 2.3% excise tax on all U.S. medical device sales beginning in calendar 2013. This tax adversely affected our profitability. Although this tax has been suspended for two years beginning January 1, 2016, it may be imposed again in the future after the period of suspension ends. Additionally, if the market reduces purchase commitments during the period of uncertainty that may arise due to the recent change in government administration, we could experience a flattening or reduction in sales during this period. We are also unsure of the effect on the U.S. healthcare system of the new administration that took office on January 20, 2017.

If we are unable to sustain profitability in 2017 and beyond, our liquidity may be adversely affected.

Although we were profitable in fiscal 2013 and 2015, we were unprofitable in fiscal 2008 through 2012 and in fiscal 2014 and 2016 and had an accumulated deficit of $8.1 million as of October 31, 2016. While we believe that our existing cash balance of $7.27 million as of October 31, 2016 is adequate to support operations for at least the next fiscal year, even after giving effect to the cash dividend we will pay in February 2017, we must sustain profitability. If this is not possible, we may need to obtain additional financing to be able to meet our future cash flow requirements, and we cannot ensure that we will be able to obtain such financing on terms favorable to us or at all.

The financial stability of our vendors could affect our business and results of operations.

We rely on third party vendors for certain components used in our products. We purchase a number of significant components, such as capacitors, batteries and integrated circuits, from sole source suppliers. Although we attempt to maintain sufficient quantities of inventory of these components to minimize production delays or interruptions, we cannot ensure that we will find suitable alternatives at reasonable prices, if at all, or that any alternatives will remain available to us. Our inability to obtain acceptable components in a timely manner or find and maintain suitable replacement suppliers for components would have a material adverse effect on us, including our ability to manufacture our products. As a result of the disruptions in the financial markets and other macro-economic challenges currently affecting the economy of the United States and other parts of the world in recent years, our vendors may have experienced and continue to experience cash flow concerns. As a result, vendors may increase their prices, reduce their output or change terms of sales. Any demands by vendors for different payment terms may adversely affect our earnings and cash flow.

Technology in the medical device industry changes rapidly.

Rapid technological change, changing customer needs and frequent new product introductions are all characteristics of the medical device industry. We face intense competition from other device manufacturers that may have access to greater resources. Our products may be rendered obsolete as a result of future innovations. Our competitors may succeed in obtaining regulatory approval and introducing products before we do. Any of these developments could have a significant negative impact on our business and results of operations.

Our future operations are dependent upon variables outside our control.

Successful implementation of our business plan depends on the interaction of many variables, including the effects of changing industry conditions and new competition. While we believe that our business plan reflects reasonable judgments in assessing those risks, we cannot ensure that unforeseen influences will not adversely affect our ability to execute our business plan strategies. While we believe that our business plan projections are in line with achievable performance levels, we cannot ensure that we will be able to obtain, and sustain, projected sales revenue.

Protection of intellectual property is critical to our business.

Patents and trademarks are critical in the medical device industry. We believe strongly in protecting our intellectual property and have a long history of obtaining patents, when available, in connection with our research and product development programs. We own a number of United States and foreign patents. We also own registered trademarks, and have applied for other trademarks in the United States and foreign countries. We cannot ensure that we will be granted patents and trademarks in the future, or that any patents and trademarks that we now hold or may be granted, or under which we have held license rights, will be valid or otherwise be of value to us. Even if our patents and trademarks are valid, others may be able to introduce non-infringing competitive products.

Although patent and intellectual property disputes in the medical device area have often been settled through licensing agreements or similar arrangements, costs associated with these arrangements may be substantial, and we cannot ensure that necessary licenses would be available to us on satisfactory terms or at all. Accordingly, an adverse determination in a judicial or administrative proceeding or failure to obtain necessary licenses could prevent us from manufacturing and selling our products, which would have a material adverse effect on our business, financial condition and results of operations.

We seek to protect our trade secrets and proprietary intellectual property, including know-how, in part, through confidentiality agreements, non-compete agreements and assignment of invention provisions in agreements with employees, consultants and other parties, as well as through contractual exclusivity with certain suppliers. We cannot ensure that these agreements will not be breached, that we would have adequate remedies for any breach, or that our trade secrets will not otherwise become known to or independently developed by competitors.

Realization of our deferred tax assets depends on our continued profitability.

Our current profitability in the U.S. and our expectation of future profitability in U.S. and Belgian operations is the basis for our valuation allowance on domestic and foreign deferred tax assets. The valuation of the respective deferred tax assets of Medical Graphics and Medisoft depends on the respective future profitability of each company. Our inability to achieve necessary levels of profitability could require us to record valuation reserves against our recorded deferred tax assets.

We cannot guarantee that we will pay future dividends.

We recently declared a special dividend. The fact that we declared a special dividend does not suggest and shareholders should not expect that our Board of Directors will declare a regular or special cash dividend in the future. Any future dividends will depend on a variety of factors including, our liquidity and balance sheet position, solvency, strength of operations, product successes, research and development needs and other factors.

We depend upon our senior management and other key personnel.

Our success depends largely on effective leadership from our senior management and other key personnel. Competition for qualified personnel with sufficient and relevant experience in the medical device industry is intense. Accordingly, the loss of the services of these individuals, or the inability to hire additional key individuals as required, could have a material adverse effect on us, including our current and future product development efforts.

Anti-Takeover provisions in Minnesota law may make a hostile takeover of our business more difficult.

We are governed by the provisions of Sections 302A.671 and 302A.673 of the Minnesota Business Corporation Act. These anti-takeover provisions could potentially operate to deny shareholders the receipt of a premium on their common stock and may also have a depressive effect on the market price of our common stock. Section 302A.671 generally provides that the shares of a corporation acquired in a "control share acquisition" have no voting rights unless voting rights are approved by the shareholders in a prescribed manner. A "control share acquisition" is generally defined as an acquisition of beneficial ownership of shares that would, when added to all other shares beneficially owned by the acquiring person, entitle the acquiring person to have voting power of 20% or more in the election of directors. Section 302A.673 prohibits a public corporation from engaging in a "business combination" with an "interested shareholder" for a period of four years after the date of the transaction in which the person became an interested shareholder, unless the business combination is approved in a prescribed manner. A "business combination" includes mergers, asset sales and other transactions. An "interested shareholder" is a person who is the beneficial owner of 10% or more of the corporation's voting stock. Reference is made to the detailed terms of Sections 302A.671 and 302A.673 of the Minnesota Business Corporation Act. We have also entered into agreements with certain executive officers that provide for certain benefits upon a change of control. These agreements would make any sale of the Company more expensive to a third party.

Item 1B. Unresolved Staff Comments.

Not Applicable.

Item 2. Properties.

The Company currently leases a 52,254 square foot building for our office, assembly and warehouse facilities located in suburban Saint Paul, Minnesota. The building is also the location of the Company's Medical Graphics subsidiary. The building lease for Medical Graphic's present office and manufacturing space will expire on December 31, 2017. Rent expense for Medical Graphics' facilities was $264,000 and $261,000 for fiscal 2016 and 2015, respectively. Annual facilities rental costs have been lower than minimum lease payments due to the application of accounting principles that include repayment for lessor funded leasehold improvements in the Saint Paul facility.

As part of the acquisition of Medisoft and its subsidiaries, the Company also has the following additional facilities:

Location	Area	Control	Use
Sorinnes, Belgium	40,000 sq. ft.	Owned	Manufacturing, administrative offices
Lille, France	400 sq. ft.	Leased to 2017	Selling office
Padova, Italy	7,500 sq. ft.	Leased to 2020	Manufacturing, sales offices

We believe our owned and leased facilities are adequate for our current and short-term future needs.

Item 3. Legal Proceedings.

The Company is subject to claims and lawsuits that have been filed in the ordinary course of business. From time to time, the Company brings suit against others to enforce patent rights or to collect debts in the ordinary course of business. The Company is not subject to any pending litigation except as set forth below.

MGC Diagnostics Corporation v. Mr. Guy Martinot and Dr. Jean-Benoît Martinot

In November 2015, the Company commenced litigation in the French-speaking courts of Brussels, Belgium against the selling shareholders of Medisoft for violations of representations and warranties in the stock purchase agreement dated as of July 10, 2014 under which the Company purchased Medisoft. The Company alleged that these violations resulted in Company damages of approximately €985,400 ($1,084,000). In May 2015, the Company received payment of €406,700 ($447,000) with respect to these alleged violations pursuant to a bank-guaranteed contractual escrow fund and has reflected that payment on its books and records. On May 30, 2016, the defendant selling shareholders filed an answer to dispute all claims and asserted a counterclaim against the Company seeking to recover the €406,700 that was paid to the Company in May 2015 and legal costs. The Company continues to believe the Medisoft selling shareholders are liable to it for violations of representations and warranties in the stock purchase agreement and intends to continue to pursue this matter. The Company has not accrued any losses related to the litigation or accrued any related legal costs it has not yet incurred. The Company currently expects that this litigation process may continue until the fall of 2017.

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.

The Company's common stock is traded on the Nasdaq Capital Market under the symbol "MGCD." The following table sets forth high and low sales prices as reported by the Nasdaq Capital Market for each quarter of fiscal year 2016 and 2015.

MGC Diagnostics Common Stock Prices

Fiscal Years	High	Low
2016		
Fourth Quarter	$ 7.87	$ 6.39
Third Quarter	6.85	5.30
Second Quarter	7.21	5.20
First Quarter	7.15	6.02
2015		
Fourth Quarter	7.60	5.00
Third Quarter	6.99	5.13
Second Quarter	7.70	5.96
First Quarter	7.35	5.51

As of January 20, 2017, there were 290 shareholders of record who held 161,000 shares of the Company's common stock. In addition, nominees held an additional 4,227,000 shares for approximately 1,000 shareholders holding shares in street name.

Dividends

On March 27, 2013, the Company declared a special cash dividend of $0.45 per share on its outstanding common stock. The dividend was paid on April 26, 2013 to holders of record as of April 12, 2013.

On January 25, 2017, the Company declared a special cash dividend of $0.70 per share on its outstanding common stock. The dividend will be paid on February 24, 2017 to holders of record as of February 10, 2017.

The Company's Board of Directors will continue to periodically assess the Company's capital resources. If the Board determines that the Company's capital resources exceed the amount necessary to meet its working capital and liquidity needs, as well as to retain a reasonable cushion for contingencies and strategic opportunities, then the Company will consider various options for increasing shareholder value, including, but not limited to, purchasing its own shares in the open market and in privately negotiated transactions, and paying cash dividends.

Equity Compensation Plan Information

At a Special Meeting of Shareholders held on August 22, 2007, the shareholders approved the MGC Diagnostics Corporation 2007 Stock Incentive Plan (the "2007 Plan") and reserved 250,000 shares of its common stock for issuance under the 2007 Plan. The 2007 Plan has been amended several times and currently authorizes the issuance of up to 1,150,000 shares. As of October 31, 2016, stock options for 371,733 shares were outstanding; 81,157 shares had been issued upon exercise of options; 404,857 shares had been issued pursuant to fully vested restricted stock awards; 41,497 shares were subject to unvested restricted stock awards; 10,221 shares had been issued as performance share awards; 19,906 shares were issued in lieu of quarterly director cash retainer fees and 220,629 shares were available for future grant in some form. Under the terms of the 2007 Plan, as amended, up to 1,150,000 shares may be issued pursuant to incentive stock awards, up to 650,000 may be issued as incentives for non-employee directors and up to 650,000 may be issued pursuant to restricted stock grants. Accordingly, as of October 31, 2016, we could grant 203,646 additional restricted stock awards out of the 220,629 remaining shares authorized under the 2007 Plan.

The Company has also adopted the 2006 Employee Stock Purchase Plan. See Note 10 to the consolidated financial statements, "Shareholders' Equity - Employee Stock Purchase Plan."

The Company offers a program that allows non-employee Board members to elect and receive shares from the 2007 Plan in lieu of some or all of their quarterly cash retainer fees. During the years ended October 31, 2016 and 2015, the Company issued 7,099 and 7,057 shares, respectively under this program.

The following table provides information as of October 31, 2016 with respect to the shares of the Company's common stock that may be issued under its 2007 Plan.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in first column)
Equity compensation plans approved by security holders:			
2007 Stock Incentive Plan	371,733	$ 6.64	220,629
2003 Employee Stock Purchase Plan	4,505	6.71	39,505
Equity compensation plans not approved by security holders	—	—	—
Total	376,238	$ 6.65	260,134

Purchases of Equity Securities By the Issuer and Affiliated Purchasers.

The Company's Board of Directors will continue to periodically assess the Company's capital resources. If the Board of Directors determines that the Company's capital resources exceed the amount necessary to meet its working capital and liquidity needs, as well as to retain a reasonable cushion for contingencies and strategic opportunities, then the Company will consider various options for increasing shareholder value, including, but not limited to, purchasing its own shares in the open market and in privately negotiated transactions and paying cash dividends.

Item 6. Selected Financial Data

In the table below, we have presented certain selected financial data as of and for each of the years in the five-year period ended October 31, 2016. The financial data has been derived from our audited consolidated financial statements. This data should be read in conjunction with Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Item 8, "Financial Statements and Supplementary Data," including "Note 3 Medisoft Acquisition Matters" of this Annual Report on Form 10-K.

	Years Ended October 31,				
(In thousands, except per share data)	**2016**	**2015**	**2014**	**2013**	**2012**
Statement of Operations Data:					
Revenues	$ 40,040	$ 37,467	$ 29,988	$ 31,640	$ 27,158
Cost of revenues	19,865	18,148	13,501	13,934	12,347
Gross margin	20,175	19,319	16,487	17,706	14,811
Operating expenses:					
Selling and marketing	10,514	8,831	8,519	9,256	8,029
General and administrative	5,737	5,722	5,878	4,762	4,146
Research and development	2,678	2,931	2,805	2,241	3,246
Impairment of goodwill	3,313	—	—	—	—
Amortization of intangibles	550	232	96	21	437
Total operating expenses	22,792	17,716	17,298	16,280	15,858
Operating income (loss)	(2,617)	1,603	(811)	1,426	(1,047)
Interest expense (income)	188	247	69	(1)	(9)
Foreign currency loss	46	929	456	—	—
Income (loss) from continuing operations before taxes	(2,851)	427	(1,336)	1,427	(1,038)
Provision for (benefit from) taxes	923	(3,549)	(176)	70	25
Income (loss) from continuing operations	(3,774)	3,976	(1,160)	1,357	(1,063)
Discontinued Operations					
Income (loss) from operations of discontinued operations	—	—	—	—	246
Gain on sale of discontinued operations	—	—	—	—	816
Income (loss) from discontinued operations	—	—	—	—	1,062
Net income (loss)	(3,774)	3,976	(1,160)	1,357	(1)
Other comprehensive loss-foreign currency	22	(149)	(114)	—	—
Comprehensive income (loss)	$ (3,752)	$ 3,827	$ (1,274)	$ 1,357	$ (1)
Weighted Average Common Shares Outstanding:					
Basic	4,312	4,238	4,171	3,982	3,828
Incremental effect of options, restricted stock awards and warrants	—	9	—	63	—
Diluted	4,312	4,247	4,171	4,045	3,828
Net income (loss) per share:					
Basic					
From continuing operations	$ (0.88)	$ 0.94	$ (0.28)	$ 0.34	$ (0.28)
From discontinued operations	—	—	—	—	0.28
	$ (0.88)	$ 0.94	$ (0.28)	$ 0.34	$ —
Diluted					
From continuing operations	$ (0.88)	$ 0.94	$ (0.28)	$ 0.34	$ (0.28)
From discontinued operations	—	—	—	—	0.28
	$ (0.88)	$ 0.94	$ (0.28)	$ 0.34	$ —
Dividends declared per share	$ —	$ —	$ —	$ 0.45	$ —

	As of October 31,				
	2016	**2015**	**2014**	**2013**	**2012**
Balance Sheet Data:					
Cash and cash equivalents	$ 7,265	$ 6,553	$ 5,675	$ 10,574	$ 9,665
Working capital	11,672	11,359	9,885	15,411	13,490
Total assets	30,678	35,588	32,384	26,191	21,948
Total current liabilities	9,381	10,357	10,831	7,812	6,303
Long-term debt	—	2,158	2,947	—	—
Total liabilities	13,755	15,661	16,939	10,347	7,198
Total shareholders' equity	16,923	19,927	15,445	15,844	14,750
Common shares outstanding at year end	4,337	4,274	4,199	4,128	3,885

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

Overview

The Company is a medical device manufacturer with revenues of $40.0 million for the year ended October 31, 2016. Domestic product sales and service revenue accounted for 76.5% of fiscal 2016 revenue while international product sales accounted for the remaining 23.5%. On August 1, 2014, the Company acquired Medisoft SA and subsidiaries to support growth in product offerings and growth within international markets.

The Company designs and markets non-invasive cardiorespiratory diagnostic products through its Medical Graphics Corporation and Medisoft SA subsidiaries under the MGC Diagnostics and Medisoft brand and trade names. These products provide solutions for disease detection, integrated care and wellness across the spectrum of cardiorespiratory healthcare. Revenue consists of equipment, supplies and accessory sales as well as service sales. Equipment, supplies and accessory sales reflect sales of non-invasive cardiorespiratory diagnostic equipment, interface, test and communication software and accessories, as well as, aftermarket sales of peripherals, supplies and software. Service revenue consists of revenue from extended service contracts and non-warranty service.

Seasonality

The Company experiences some seasonality in its revenues, with the fourth quarter of its fiscal year traditionally being its strongest quarter. The Company experiences variability in quarterly results due to a number of factors, including customer budget cycles, product introductions, Company sales incentive programs, the Company's ability to convert competitor accounts, general economic conditions and the timing of customer orders.

Although the Company currently expects fiscal 2017 revenues to increase over fiscal 2016 revenues, the Company expects quarter-over-quarter results to vary during the fiscal year, due to seasonality and other factors listed above.

Recent Key Developments:

- Fiscal 2016 operating loss was $(2.6 million) compared to operating income of $1.6 million in fiscal 2015. The fiscal 2016 operating loss included charges of $3,313,000 for Medisoft goodwill impairment, $298,000 for impairment of certain Medisoft intangible assets, and $670,000 and $354,000 for inventory reserves related to Resmon PRO FOT and SleepVirtual diagnostic inventory, respectively, as well as $650,000 of costs for a legal settlement with the manufacturer of the SleepVirtual inventory. Fiscal 2016 net loss was $(3.8 million) or $(0.88) per diluted share, compared to fiscal 2015 net income of $4.0 million or $0.94 per diluted share, including (i) the recognition of a $3.1 million domestic tax benefit related to the partial reversal of the valuation allowance on deferred tax assets related to Medical Graphics' net operating loss carryforwards and (ii) $0.54 million deferred tax benefit in foreign operations.

- During fiscal 2016, cost changes at Medisoft resulted in a near breakeven operating loss, before the effects of impairments of goodwill and certain acquisition intangible assets, on Euro-denominated revenue growth of 6.2%, which was reduced to 4.3% after reflecting the effects of a strengthening of the USD/EUR exchange rate.

- Our continued focus on selling extended service agreements at the time of initial system purchase continues to sustain our service revenues. Domestic service revenues were $7.0 million for fiscal 2016 compared to $6.8 million for fiscal 2015. The Attachment Rate, which reflects the percentage of Extended Service Contracts added at the point of sale to customer equipment purchases, was 31.2% and 31.5% for fiscal 2016 and 2015, respectively. The Company had combined current and long-term deferred revenue of $7.6 million and $6.2 million as of October 31, 2016 and 2015, respectively, associated with service contract agreements.

- In line with our strategic objective to grow revenues faster than the market growth, we have focused on converting competitor accounts into MGC Diagnostics customers. Fiscal 2016 domestic equipment and accessories revenues included 89 competitive conversions ($5.6 million in revenue), compared to 66 competitive conversions ($3.1 million in revenue) during fiscal 2015. Excluding the effect of revenue from competitive conversions in each period, Medical Graphics domestic equipment and accessories revenue generated from existing customers grew 6.3% in fiscal 2016, compared to fiscal 2015.

Results of Operations

The following table contains selected information from our historical consolidated statements of comprehensive income (loss), expressed as a percentage of revenue:

	Year ended October 31,	
	2016	2015
Revenues	100.0%	100.0%
Cost of revenues	49.6	48.4
Gross margin	50.4	51.6
Operating Expenses		
Selling and marketing expenses	26.3	23.6
General and administrative expenses	14.3	15.3
Research and development expenses	6.7	7.8
Impairment of goodwill	8.3	—
Amortization of intangibles	1.3	0.6
Total operating expenses	56.9	47.3
Operating income (loss)	(6.5)	4.3
Interest expense	0.5	0.7
Foreign currency loss	0.1	2.5
Provision for (benefit from) taxes	2.3	(9.5)
Net income (loss)	(9.4)%	10.6%

The following paragraphs discuss the Company's performance for fiscal years ended October 31, 2016 and 2015.

The Company operates in a single industry segment, the manufacture and sale of cardiorespiratory diagnostic products. The following discussion segregates information with respect to Medical Graphics and Medisoft. Combined results for Medical Graphics and Medisoft are referred to as "Consolidated" results.

Revenues

Fiscal 2016 consolidated revenues increased 6.9% to $40.0 million, compared to $37.5 million for fiscal 2015. Medical Graphics' fiscal 2016 total revenue increased 7.3% to $34.4 million, compared to $32.0 million for fiscal 2015. Medisoft's fiscal 2016 total revenue was $5.7 million, compared to $5.4 million for fiscal 2015, a 4.3% increase.

Fiscal 2016 domestic equipment and accessories revenues for Medical Graphics included 89 competitive conversions ($5.6 million in revenue), compared to 66 competitive conversions ($3.1 million in revenue) for fiscal 2015. Excluding the effect of revenue from competitive conversions in each period, Medical Graphics domestic equipment and accessories revenue generated from existing customers grew 6.3% in fiscal 2016 compared to fiscal 2015.

Domestic service revenues, all of which were contributed by Medical Graphics, increased 2.1% to $7.0 million, compared to $6.8 million for fiscal 2015. The Attachment Rate, which reflects the percentage of Extended Service Contracts added at the point of sale to customer equipment purchases, was 31.2% for fiscal 2016 and 31.5% for fiscal 2015.

Consolidated international equipment, supplies and accessories revenues decreased 10.8% to $9.4 million, compared to $10.6 million for fiscal 2015, due primarily to a 22.7% reduction in international equipment sales from Medical Graphics.

Medical Graphics domestic recurring revenue, consisting of supplies and services revenues, grew to $13.8 million representing 34.4% of consolidated fiscal 2016 revenues compared to 35.2% of fiscal 2015 revenues.

Sales backlog at the end of fiscal 2016 was $1.5 million ($1.2 million for Medical Graphics and $0.3 million for Medisoft), compared to $2.6 million at the end of fiscal 2015, which was an all-time high.

The Company anticipates revenue growth in the near term due to its current sales backlog and its pipeline of new sales opportunities. Sustained seasonal growth for all of fiscal 2017 will depend on the rate at which current customers replace older devices and the Company's ability to continue taking business away from its competition.

Gross Margin

Gross margin for fiscal 2016 was 50.4% (52.2% for Medical Graphics and 39.6% for Medisoft), compared to 51.6% for fiscal 2015 (54.1% for Medical Graphics and 36.7% for Medisoft). Gross margin for equipment, supplies and accessories was 46.2% (47.6% for Medical Graphics and 39.6% for Medisoft), compared to 47.5% for fiscal 2015 (49.8% for Medical Graphics and 36.7% for Medisoft). Gross margin for fiscal 2016 for services was 70.2%, compared to 69.8% for fiscal 2015.

Fiscal 2016 gross margin was adversely affected by charges of $354,000 and $670,000 for inventory valuation reserves for the Company's SleepVirtual and Resmon PRO FOT inventory, respectively (3.0% of Medical Graphics revenue; 2.6% of consolidated revenues). These reserves were recorded as a result of the fiscal fourth quarter review and assessment, which indicated that these inventories exceeded the forecasted unit sales determined in the development of the Fiscal 2017 operating budget.

The Company expects to maintain total gross margin in the mid-50% range for Medical Graphics during fiscal 2017, absent significant change in volume and product mix or additional inventory impairment. Although Medisoft gross margin has improved during fiscal 2016 compared to fiscal 2015, continued improvement of Medisoft gross margin will depend on its ability to increase its revenue to better leverage its fixed costs of production.

Selling and Marketing

Selling and marketing expenses for fiscal 2016 increased by 19.1%, or $1.7 million, to $10.5 million compared to $8.8 million for fiscal 2015. This expense increase was comprised of increases of $1,280,000 and $404,000 for Medical Graphics and Medisoft, respectively, compared to fiscal 2015. For Medical Graphics fiscal 2016 expenses compared to 2015, there was a $619,000 increase in sales commissions and buying group fees, a $316,000 increase in telemarketing services, a $183,000 increase in consulting fees, a $143,000 increase in personnel costs and a $97,000 increase in promotion and demonstration expenses, offset in part by a decrease of $119,000 in management incentives. Medisoft increases relate primarily to realignment of personnel resources for fiscal 2016 compared to 2015.

General and Administrative

General and administrative expenses for 2016 were flat at $5.7 million compared to 2015. Fiscal 2016 Medical Graphics expenses increased by $650,000 due to a legal settlement with Neurovirtual USA, Inc. with respect to a termination of an inventory distribution agreement, a $205,000 increase in net personnel and consulting costs and a $92,000 increase in legal expenses, which were partially offset by a $435,000 decrease in Medisoft integration expenses compared to the prior year and a $151,000 decrease in management incentives.

Research and Development

Research and development expenses for 2016 decreased by 8.6%, or $0.2 million, to $2.7 million compared to $2.9 million in 2015. This decrease is primarily in Medical Graphics expenses due to $141,000 of personnel and consultant costs, an $80,000 net decrease in project-related material costs and $68,000 of management incentives. The hardware and software development expense reductions of $358,000 in 2016 were offset in part by $162,000 of increases in hardware and software sustaining costs, compared to fiscal 2015 expenses. The Company capitalized software development costs of $739,000 in 2016 and $740,000 in 2015.

Impairment of Goodwill

During the fiscal 2016 fourth quarter, management met with our Board of Directors to present, discuss and obtain approval of the fiscal 2017 budget for Medical Graphics and Medisoft. During this meeting, Medisoft's fiscal 2017 revenue, gross margin and operating expense metrics were forecast to be comparable to fiscal 2016 actual results. The fiscal 2017 Medisoft budget that was approved by the Board forecast less favorable results than the preliminary budget the Company had forecast when it reviewed potential triggering events during the fiscal 2016 third quarter. Using the less favorable fiscal 2017 Medisoft budget as the baseline, management developed a long-range financial projection that it used to determine an enterprise fair value for Medisoft. The outcome of this long-range projection showed lower revenue and profitability for future years than what the Company had forecast in the past. The lower long-range projection resulted in an implied enterprise fair value for Medisoft that was significantly below its book carrying value, resulting in the full impairment of goodwill. As a result, the Company recorded a charge of $3,313,000 for the impairment of the full balance of the goodwill from the Medisoft acquisition.

Amortization of Intangibles

Amortization costs increased by $0.3 million to $.5 million for the year ended October 31, 2016 compared to $0.2 million for the year ended October 31, 2015. In connection with the testing of long-lived assets in the fourth fiscal quarter, the Company also determined that the unamortized original value of $298,000 assigned to two patents and in-process research and development were deemed to be impaired because the asset was either abandoned or future revenue and cash flow streams could not be forecasted for these assets.

In addition, in fiscal 2016, the Company's cost of equipment revenues included approximately $336,000 of amortization related to capitalized software development costs compared to $379,000 in fiscal 2015. The fiscal 2016 amortization included $245,000 and the fiscal 2015 amortization included $266,000 of recorded impairment for software that was deemed to have no future value.

Interest Expense

Interest expense for 2016, net of interest income, was $188,000 compared to $247,000 in 2015. The decrease in interest expense is related to the fiscal 2016 payoff of the remainder of the $4.0 million term loan the Company used to partially finance the acquisition of Medisoft on August 1, 2014. Interest rates were variable in relation to the lender’s base rate. The Company earns interest income on excess cash, which is consistent with the Company’s goal of preserving capital. In fiscal 2015, interest income included interest of $29,000 related to the Company’s receipt of a research and development credit from the State of Minnesota.

Provision for Taxes

In the quarter ended October 31, 2016, the Company early adopted ASU 2016-09, *Improvements to Employee Share-Based Payment Accounting*. The standard simplifies various aspects of the accounting and presentation of share-based payments including the income tax consequences. The impact of the adoption of this standard is more fully described in Note 12.

The Company recorded a net income tax expense of $923,000 in fiscal 2016 compared to a $3,549,000 income tax benefit in fiscal 2015. The fiscal 2016 income tax expense includes U.S deferred expense of approximately $593,000, and foreign deferred expense of approximately $106,000 related to Medisoft Belgium. The U.S. current tax includes state taxes, minimum fees and federal AMT of approximately $206,000, and an increase in reserve for uncertain tax positions totaling $18,000.

The Company will continue to assess the potential realization of its remaining deferred tax assets in the future to determine if sufficient evidence exists to remove all or a portion of the Company’s remaining valuation allowance on its deferred tax assets. In making this assessment, management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies. The Company has not yet achieved the more-likely-than-not threshold for the remaining valuation allowance of (i) approximately $1,952,000 in place on its domestic deferred tax assets and (ii) approximately $772,000 related to its Belgium, Italy, Germany, France and Belgium S.P.R.L. subsidiaries deferred tax assets. Any reversal of the remaining valuation allowance on the Company’s deferred tax assets may have a substantial impact on profitability in the period of the reversal. For additional information see Note 12 to the consolidated financial statements, “Income Taxes.”

Liquidity and Capital Resources

The Company had cash of $7.3 million and working capital of $11.7 million as of October 31, 2016. During 2016, the Company generated $4.6 million in cash from operating activities, with $3.3 million generated before changes in working capital items. Net increases in 2016 cash from working capital of $1,249,000 consisted principally of a $1,554,000 increase in deferred income collected, $850,000 decrease in inventory, $269,000 decrease in prepaid and other current assets, a $244,000 increase in accounts payable, offset by an $848,000 increase in accounts receivable, an $518,000 decrease in other current liabilities and accrued expenses, and a $302,000 decrease in employee compensation accruals. Days sales outstanding (“DSO”), which measures how quickly receivables are collected, increased by 1 day to 65 days from 2015 to 2016, which decreased cash flows. Inventory decreased by $1,843,000 ($993,000 from non-cash impairment reserves), as days of inventory on hand decreased by 51 days to 70 days in 2016. The accounts payable balance increased by $244,000, increasing cash flow and decreasing days payables outstanding by 9 days to 38 days in 2016. Employee compensation accruals as of October 31, 2016 were lower compared to October 31, 2015 due to a decrease for the 2016 management incentive bonus program.

During 2016, the Company used $907,000 in cash for the purchase of property, equipment and intangible assets. The Company had no material commitments outstanding for capital expenditures for fiscal year 2016. The Company is continuing its investment in the initiative to migrate its products' operating software to a next generation software platform, including expensed development efforts and capitalized software development costs, as it pursues approval of this software platform with the Food and Drug Administration during fiscal 2017. During 2016, the Company used $3.0 million to pay off the remaining principal balance on its long-term loan. The Company has no debt or an available line of credit.

The Company's Board of Directors will continue to periodically assess the Company's capital resources. If the Board of Directors determines that the Company's capital resources exceed the amount necessary to meet its working capital and liquidity needs, as well as to retain a reasonable cushion for contingencies and strategic opportunities, then the Company will consider various options for increasing shareholder value, including, but not limited to, purchasing its own shares in the open market and in privately negotiated transactions and paying cash dividends.

On January 25, 2017, the Company declared a special cash dividend of $0.70 per share on its outstanding common stock. The dividend will be paid on February 24, 2017 to holders of record as of February 10, 2017. The Company believes that its cash balance after payment of the dividend will be sufficient to fund its operations and working capital requirements and permit anticipated capital expenditures during the upcoming year. We may pursue acquisitions of other companies or product lines, which if successful may require additional funding sources.

Critical Accounting Policies

Significant accounting policies adopted and applied by the Company are summarized in Note 2 to the consolidated financial statements, "Summary of Significant Accounting Policies," which is included in this Form 10-K. Some of the more critical policies include revenue recognition, reserve for inventory obsolescence, allowance for doubtful accounts, internal software development costs, income taxes, stock-based compensation and impairment of long-lived assets, intangible assets and goodwill. Management considers the following accounting policies to be the most critical to the presentation of the consolidated financial statements because they require the most difficult, subjective and complex judgments.

Revenue Recognition. The Company recognizes revenue when persuasive evidence of an arrangement exists, transfer of title has occurred or services have been rendered, the selling price is fixed or determinable and collectability is reasonably assured. The Company's products are sold for cash or on credit terms requiring payment based on the shipment date. Credit terms can vary between customers due to many factors, but are generally 30 to 60 days. Revenue, net of discounts, is generally recognized upon shipment or delivery to customers in accordance with written sales terms. Standard sales terms do not include customer acceptance conditions, future credits, rebates or general rights of return. The terms of sales to both domestic customers and international distributors are similar though in some instances longer for international customers. In instances when a customer order specifies final acceptance of the system, the Company defers recognition of revenue until all customer acceptance criteria have been met. In certain situations customer requested short-term bill-and-hold arrangements have been accommodated and accounted for in accordance with authoritative literature. Estimated warranty obligations are recorded upon shipment. Sales and use taxes are reported on a net basis, excluding them from revenues and cost of revenues.

Service contract revenue is based on a stated contractual rate and is deferred and recognized ratably over the service period, which is typically from one to five years. Deferred revenue associated with service contracts and supplies was $7,551,000 and $6,173,000 as of October 31, 2016 and 2015, respectively. Revenue from installation and training services provided to domestic customers is deferred until the service has been performed. The Company recognizes revenue related to installation and training if service is not performed within six months from equipment shipment date since the probability these services will be used by the customer after that time is remote, based on continued analysis of historical information. The amount of deferred installation and training revenue was $533,000 and $412,000 as of October 31, 2016 and 2015, respectively.

When a sale involves multiple deliverables, such as equipment, installation services and training, the amount of the consideration from an arrangement is allocated to each respective element based on the relative selling price and recognized as revenue when revenue recognition criteria for each element is met. Consideration allocated to delivered equipment is equal to the total arrangement consideration less the selling price of installation and training. The selling price of installation and training services is based on specific objective evidence, including third-party invoices. The assumptions used in allocating the amount of consideration to each deliverable represent management's best estimates, but these estimates involve inherent uncertainties and the application of management judgment.

Allowance for Doubtful Accounts. The Company establishes estimates of the uncollectable accounts receivable. Management analyzes accounts receivable, historical write-offs of bad debts, customer concentrations, customer credit-worthiness, current economic trends and changes in customer payment terms when evaluating the adequacy of the allowance for doubtful accounts. The Company maintains an allowance for doubtful accounts at an amount that it estimates to be sufficient to provide adequate protection against losses resulting from collecting less than full payment on receivables. A considerable amount of judgment is required when assessing the realizability of receivables, including assessing the probability of collection and the current credit-worthiness of each customer. If the financial condition of the Company's customers were to deteriorate, resulting in an impairment of their ability to make payments, an additional provision for doubtful accounts might be required.

Reserve for Inventory Obsolescence. We analyze the level of inventory on hand on a periodic basis in relation to estimated customer requirements to determine whether write-downs for excess, obsolete or slow-moving inventory are required. Any significant or unanticipated changes in these factors could have a significant impact on the value of our inventories and on our reported operating results. We provide reserves of obsolete inventory when we deem the value to be impaired considering the age of the item, recent and expected usage and expected resale value in current and alternative markets, within current economic conditions.

Internal Software Development Costs. Internal software development costs consist primarily of internal salaries and consulting fees for developing software platforms for sale to or use by customers within equipment the Company sells. We capitalize costs related to the development of our software products, as all of these software products will be used as an integral part of a product or process that we sell or lease. This software is primarily related to our BreezeSuite platform and its underlying support products.

We capitalize costs related to software developed for new products and significant enhancements of existing products once technological feasibility has been reached and all research and development for the components of the product have been completed. These costs are amortized on a straight-line basis over the estimated useful life of the related product, generally five years, but not to exceed seven years on historic additions, commencing with the date the product becomes available for general release to our customers. The achievement of technological feasibility and the estimate of a product's economic life require management's judgment. Any changes in key assumptions, market conditions or other circumstances could result in an impairment of the capitalized asset and a charge to our operating results. The Company is reviewing the appropriateness of the software life of its software platform currently under development to ascertain an appropriate useful life.

Income Taxes. The Company uses the asset and liability method of accounting for income taxes in accordance with FASB ASC 740, Income Taxes. The Company recognizes deferred tax assets or liabilities for the expected future tax consequences of temporary differences between the book and tax bases of assets and liabilities. Each quarter, the Company assesses the likelihood that its deferred tax assets will be recovered from future taxable income. The analysis to determine the amount of the valuation allowance is highly judgmental and requires weighing positive and negative evidence including historical and projected future taxable income and ongoing tax planning strategies. See Note 12 to the consolidated financial statements, "Income Taxes," for further discussion of the Company's valuation allowance and discussion of the future effects of its adoption of the Financial Accounting Standards Board Accounting Standards Update 2016-09, *Income Taxes (Topic 718) Improvements to Employee Share-based Compensation Accounting* (ASU 2016-09).

Stock-Based Compensation. The Company recognizes stock-based compensation expense for stock option and restricted stock awards on a straight-line basis over the vesting period of the underlying award. Determining the appropriate fair value model and calculating the fair value of stock-based payment awards requires the input of highly subjective assumptions, including the expected life of the share-based payment awards and stock price volatility. We use the Black-Scholes option-pricing model to value our stock option awards. The assumptions used in calculating the fair value of share-based payment awards represent management's best estimates, but these estimates involve inherent uncertainties and the application of management judgment. As a result, if factors change and management uses different assumptions, stock-based compensation expense could be materially different in the future. We are required to estimate the expected term and forfeiture rate and only recognize expense for those shares we expect to vest. If the actual forfeiture rate is materially different from the estimate, stock-based compensation expense could be significantly different from what we recorded in the current period. With the adoption of ASU 2016-09, this estimate is no longer required and the effects of actual forfeitures are recorded at the time they occur. This change did not have a material effect on expenses recorded in 2016.

Impairment of Long-Lived Assets. The Company assesses the recoverability of long-lived assets whenever events or changes in circumstances indicate that expected future undiscounted cash flows might not be sufficient to support the carrying value of an asset. We measure recoverability of assets to be held and used by comparing the carrying value of an asset to future net cash flows we expect the asset to generate. If these assets are considered to be impaired, we recognize the impairment in the amount by which the carrying value of the assets exceeds the fair value of the assets. The Company recorded charges of $0.3 million in fiscal 2016 during this annual fourth quarter review. We report assets to be disposed of at the lower of the carrying amount or fair value less costs to sell. The Company has determined that no unrecorded impairment of long-lived assets exists as of October 31, 2106.

Intangible Assets. Definite-lived intangible assets consist of Medical Graphics capitalized software, consisting of software in service, which is being amortized over five years and software that has not yet been placed in service as of October 31, 2016 and is not yet being amortized and patent costs, which are amortized on a straight-line basis over five to ten years, as well as, various acquired Medisoft identified and valued intangible assets including developed technology, trademarks and trade names and customer and distributor relationships, which are amortized over four to ten years.

Goodwill. ASC 805, *Business Combinations*, establishes the authoritative guidance setting out principles and requirements for how an acquirer recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed and the goodwill acquired. The underlying purchase method of accounting for acquisitions within this guidance requires that assets acquired and liabilities assumed be recorded at their fair value at the acquisition date and includes the capitalization of purchased in-process research and development and the expensing of acquisition costs.

When a company is acquired, the purchase price is allocated among net tangible assets, in-process research and development, other identifiable intangible assets and the remainder, if any, is recognized as goodwill. Goodwill represents the excess of the aggregate purchase price over the fair value of net assets of acquired businesses and is not amortized, in accordance with ASC 350, *Intangibles-Goodwill and Other*. However, the Company will periodically assess the qualitative factors to determine whether events or circumstances lead to a determination that it is more likely than not that the fair value of the reporting unit is less than its carrying amount and on September 30 of each fiscal year perform its annual impairment test as required by ASC 350. To the extent that there is impairment of the recorded goodwill, the Company will make charges to impair goodwill. During the fiscal 2016 fourth quarter, management met with our Board of Directors to present, discuss and obtain approval of the fiscal 2017 budget for Medical Graphics and Medisoft. During this meeting, Medisoft's fiscal 2017 revenue, gross margin and operating expense metrics were forecast to be comparable to fiscal 2016 actual results. The fiscal 2017 Medisoft budget that was approved by the Board forecast less favorable results than the preliminary budget the Company had forecast when it reviewed potential triggering events during the fiscal 2016 third quarter. Using the less favorable fiscal 2017 Medisoft budget as the baseline, management developed a long-range financial projection that it used to determine an enterprise fair value for Medisoft. The outcome of this long-range projection showed lower revenue and profitability for future years than what the Company had forecast in the past. The lower long-range projection resulted in an implied enterprise fair value for Medisoft that was significantly below its book carrying value, resulting in the full impairment of goodwill. As a result, the Company recorded a charge of $3,313,000 for the impairment of the full balance of the goodwill from the Medisoft acquisition.

The Company assigns values to other identifiable intangible assets based on Company-determined valuations. In making these determinations, the Company considers current information that may include reports developed in part by independent third-party appraisers. The techniques used by these appraisers may include (i) identifying information for comparable market examples, where available, and (ii) analyzing estimated future cash flows of each project, technology or identified intangible asset and discounting these net cash flows using an appropriate risk-adjusted rate of return. The discount rate used is determined at the time of the acquisition in accordance with accepted valuation methods.

Foreign Currency Exchange Risk

The acquisition of Medisoft, which maintains offices in Belgium, Italy and France, has increased the Company's exposure to currency exchange risks as a result of its investment in Euro-denominated assets and the earnings derived from Medisoft's operations. The financing of the acquisition was structured to obtain potential tax savings on future profitability of the acquired companies. The accounting for the internal funding resulted in losses in United States dollars against the Euro which are required to be reported in earnings of the current period. In fiscal 2016 and 2015, due to the United States dollar leveling off against the Euro, we reported exchange losses of $46,000 and $929,000, respectively. Additionally, pertaining to the net asset position for assets and liabilities of Medisoft, we incurred currency translation gains (losses) in fiscal 2016 and 2015 of $22,000 and $(149,000), respectively, which are included in the consolidated balance sheet as accumulated other comprehensive loss.

All sales made by the Company's Medical Graphics subsidiary are denominated in U.S. dollars. The Company does not currently and does not intend in the future to use derivative financial instruments for trading or hedging purposes.

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

The company has not invested in any monetary financial instruments as of October 31, 2016.

The Company has no debt that is subject to interest rate fluctuation. As a result, we do not believe the Company has material interest or market risk exposure on monetary assets or liabilities.

As of October 31, 2016, the Company has net asset exposure of €1,839,000. The effect of a 5.0% favorable and unfavorable movement in the Euro to USD exchange rate would be a gain (loss) of $106,000 or $(96,000), respectively. As a result, we continue to face foreign exchange rate risk.

The Company transacts a portion of its Medical Graphics transactions in international markets. However, since substantially all foreign contracts are dollar-denominated, there is limited exposure to Medical Graphics transactions due to currency fluctuations.

The Company does not use derivative financial instruments nor do we enter into any futures or forward commodity contracts since we do not have significant market risk exposure with respect to commodity prices.

Item 8. Financial Statements and Supplementary Data.

Management's Report on Internal Controls over Financial Reporting

The Board of Directors and Shareholders
MGC Diagnostics Corporation
St. Paul, Minnesota

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting, as that term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control — Integrated Framework issued in 2013 by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on our evaluation under that framework, the Company identified a material weakness in internal control over financial reporting related to the Company's accounting for inventory and accounts receivable valuation reserve estimates and concluded that the Company's disclosure controls and procedures were not effective as of October 31, 2016.

In its evaluation, the Company noted significant deficiencies related to valuation reserves provided with respect to SleepVirtual product inventory, sales demonstration inventories and foreign accounts receivable. When aggregated, these significant deficiencies resulted in a material weakness in internal controls over valuation reserve estimation practices. For more information on the Company's remediation program see Part III, Item 9A - "Controls and Procedures" of this report.

Due to this material weakness in internal control over financial reporting, the Company performed other procedures related to the affected valuation reserve estimates for the year ended October 31, 2016 to ensure that the financial statements as of and for the year ended October 31, 2016 were presented fairly, in all material respects, in accordance with U.S. generally accepted accounting principles.

A control system, no matter how well-designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. In addition, the design of any system of controls is based in part on certain assumptions about the likelihood of future events, and controls may become inadequate if conditions change. There can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

This annual report does not include an attestation report of the Company's independent registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by the Company's independent registered public accounting firm pursuant to rules of the Securities and Exchange Commission that permit the Company to provide only management's report in this annual report.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders
MGC Diagnostics Corporation and Subsidiaries
St. Paul, Minnesota

We have audited the accompanying consolidated balance sheets of MGC Diagnostics Corporation and Subsidiaries as of October 31, 2016 and 2015, and the related consolidated statements of comprehensive income (loss), shareholders' equity and cash flows for the years then ended. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits 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 consolidated financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of its internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management as well as evaluating the overall consolidated financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of MGC Diagnostics Corporation and Subsidiaries as of October 31, 2016 and 2015 and the consolidated results of their operations and cash flows for the years then ended, in conformity with U.S. generally accepted accounting principles.

/s/ Baker Tilly Virchow Krause, LLP

Minneapolis, Minnesota
January 30, 2017

MGC DIAGNOSTICS CORPORATION AND SUBSIDIARIES
Consolidated Balance Sheets
October 31, 2016 and October 31, 2015
(In thousands, except share and per share data)

	October 31, 2016	October 31, 2015
Assets		
Current Assets:		
Cash and cash equivalents	$ 7,265	$ 6,553
Accounts receivable, net of allowance for doubtful accounts of $92 and $117, respectively	8,286	7,416
Inventories, net of obsolescence reserve of $1,281 and $288, respectively	4,916	6,759
Prepaid expenses and other current assets	586	988
Total current assets	21,053	21,716
Property and equipment, net of accumulated depreciation of $4,754 and $4,431, respectively	2,632	2,894
Intangible assets, net	4,211	4,305
Goodwill	—	3,324
Deferred income taxes	2,643	3,342
Other non-current assets	139	7
Total Assets	$ 30,678	$ 35,588
Liabilities and Shareholders' Equity		
Current Liabilities:		
Accounts payable	$ 2,876	$ 2,617
Employee compensation	1,550	1,854
Deferred income	4,007	3,608
Current portion of long-term debt	—	785
Other current liabilities and accrued expenses	948	1,493
Total current liabilities	9,381	10,357
Long-term liabilities:		
Long-term debt, less current portion	—	2,158
Long-term deferred income and other	4,374	3,146
Total Liabilities	13,755	15,661
Commitments and Contingencies		
Shareholders' Equity:		
Common stock, $0.10 par value, authorized 25,000,000 shares, 4,378,811 and 4,324,379 shares issued and 4,337,314 and 4,274,386 shares outstanding in 2016 and 2015, respectively	434	427
Undesignated shares, authorized 5,000,000 shares, no shares issued and outstanding	—	—
Additional paid-in capital	24,859	24,118
Accumulated deficit	(8,129)	(4,355)
Accumulated other comprehensive loss	(241)	(263)
Total Shareholders' Equity	16,923	19,927
Total Liabilities and Shareholders' Equity	$ 30,678	$ 35,588

See accompanying notes to consolidated financial statements.

MGC DIAGNOSTICS CORPORATION AND SUBSIDIARIES
Consolidated Statements of Comprehensive Income (Loss)
(In thousands, except per share data)

	Year ended October 31,	
	2016	**2015**
Revenues		
Equipment, supplies and accessories revenues	$ 33,063	$ 30,636
Service revenues	6,977	6,831
	40,040	37,467
Cost of revenues		
Cost of equipment, supplies and accessories revenues	16,761	16,082
Loss on inventory valuation	1,024	—
Cost of service revenues	2,080	2,066
	19,865	18,148
Gross margin	20,175	19,319
Operating expenses:		
Selling and marketing	10,514	8,831
General and administrative	5,737	5,722
Research and development	2,678	2,931
Goodwill impairment	3,313	—
Amortization of intangibles	550	232
	22,792	17,716
Operating (loss) income	(2,617)	1,603
Interest expense, net	188	247
Foreign currency loss	46	929
Income (loss) before taxes	(2,851)	427
Provision for (benefit from) taxes	923	(3,549)
Net income (loss)	(3,774)	3,976
Other comprehensive loss, net of tax		
Effect of foreign currency translation adjustments	22	(149)
Comprehensive income (loss)	$ (3,752)	$ 3,827
Income (loss) per share:		
Basic	$ (0.88)	$ 0.94
Diluted	$ (0.88)	$ 0.94
Weighted average common shares outstanding:		
Basic	4,312	4,238
Diluted	4,312	4,247

See accompanying notes to consolidated financial statements.

MGC DIAGNOSTICS CORPORATION AND SUBSIDIARIES
Consolidated Statements of Cash Flows

	Year ended October 31,	
	2016	2015
Cash flows from operating activities:		
Net (loss) income	$ (3,774)	$ 3,976
Adjustments to reconcile net (loss) income to net cash provided by operating activities:		
Depreciation	439	439
Amortization	943	627
Loss on goodwill impairment	3,313	—
Stock-based compensation	679	496
Deferred income taxes	699	(3,655)
Loss on foreign currency	43	938
Decrease in allowance for doubtful accounts	(25)	(111)
Loss on inventory valuation	1,024	—
Decrease in inventory obsolescence reserve	(31)	(159)
Loss on disposal of equipment	3	3
Changes in operating assets and liabilities:		
Accounts receivable	(848)	(356)
Inventories	850	(1,133)
Prepaid expenses and other current assets	269	913
Accounts payable	244	(423)
Employee compensation	(302)	236
Deferred income	1,554	238
Other current liabilities and accrued expenses	(518)	129
Net cash provided by operating activities	4,562	2,158
Cash flows from investing activities:		
Purchases of property and equipment and intangible assets	(907)	(927)
Net assets of business acquired, net of cash received	—	447
Net cash used in investing activities	(907)	(480)
Cash flows from financing activities:		
Payment of debt issuance costs	—	(5)
Payment of long-term borrowing	(3,000)	(800)
Proceeds from issuance of common stock under employee stock purchase plan	97	117
Proceeds from the exercise of stock options	—	57
Repurchase of common stock upon vesting of restricted stock awards	(28)	(48)
Net cash used in financing activities	(2,931)	(679)
Effect of exchange rate changes on cash	(12)	(121)
Net increase in cash	712	878
Cash at beginning of year	6,553	5,675
Cash at end of year	$ 7,265	$ 6,553
Cash paid for taxes	$ 205	$ 53
Cash paid for interest	99	161
Supplemental non-cash items:		
Current and non-current liabilities issued for leasehold improvements	$ 51	$ —
Common stock issued for long-term liability	—	33

See accompanying notes to consolidated financial statements.

MGC DIAGNOSTICS CORPORATION AND SUBSIDIARIES
Consolidated Statements of Shareholders' Equity
(In thousands)

	Common Stock		Additional		Accumulated Other	
	Number of Shares	Par Value	Paid-in Capital	Accumulated Deficit	Comprehensive Loss	Total
Balance as of October 31, 2014	4,199	$ 420	$ 23,470	$ (8,331)	$ (114)	$ 15,445
Employee stock purchase plan	24	2	115	—	—	117
Exercise of stock options	11	1	56	—	—	57
Vesting of restricted stock awards	45	4	(4)	—	—	—
Common stock issued for long-term liability	2	—	33	—	—	33
Repurchase of common stock upon vesting of restricted common shares	(7)	—	(48)	—	—	(48)
Stock-based compensation	—	—	496	—	—	496
Net comprehensive income (loss)	—	—	—	3,976	(149)	3,827
Balance as of October 31, 2015	4,274	427	24,118	(4,355)	(263)	19,927
Employee stock purchase plan	20	2	95	—	—	97
Vesting of restricted stock awards	47	5	(5)	—	—	—
Repurchase of common stock upon vesting of restricted common shares	(4)	—	(28)	—	—	(28)
Stock-based compensation	—	—	679	—	—	679
Net comprehensive income (loss)	—	—	—	(3,774)	22	(3,752)
Balance as of October 31, 2016	4,337	$ 434	$ 24,859	$ (8,129)	$ (241)	$ 16,923

See accompanying notes to consolidated financial statements.

MGC DIAGNOSTICS CORPORATION AND SUBSIDIARIES
Notes to Consolidated Financial Statements

(1) Basis of Presentation and Description of Business

The consolidated financial statements include the accounts of MGC Diagnostics Corporation and its wholly-owned subsidiaries Medical Graphics Corporation and Medisoft SA (including MGC Diagnostics Belgium S.P.R.L., the holding company and Medisoft's next tier wholly-owned subsidiaries). All inter-company transactions and balances have been eliminated in consolidation.

MGC Diagnostics Corporation (the "Company"), through its Medical Graphics Corporation and Medisoft SA subsidiaries, designs and markets non-invasive cardiorespiratory diagnostic systems that are sold under the MGC Diagnostics and Medisoft brand and trade names. These cardiorespiratory diagnostic systems have a wide range of applications within cardiorespiratory healthcare.

Revenues consist of equipment, supply and accessory revenues and services revenues. Equipment, supply and accessory revenues reflect sales of non-invasive cardiorespiratory diagnostic system equipment and software, and aftermarket sales of software, peripherals and supplies. Service revenues reflect contract revenues from extended warranties, non-warranty service visits and training.

(2) Summary of Significant Accounting Policies

Basis of Presentation

For accounting purposes, the Company adopted fresh-start reporting in accordance with FASB ASC 852, *Reorganizations*, as of October 31, 2002 and all assets and liabilities were recorded at their respective fair values. Goodwill and intangible assets recorded upon the Company's emergence from bankruptcy have subsequently been reduced by the use of pre-emergence bankruptcy net operating loss carry forwards ("NOLs").

Concentration of Cash

The Company deposits its cash in high credit quality institutions. The balance, at times, may exceed federally insured limits.

Accounts Receivable

We carry unsecured accounts receivable at original invoice amount less an estimate made for doubtful receivables based on a monthly review of all outstanding amounts. Credit terms can vary between customers due to many factors, but are generally 30 to 60 days. Management determines the allowance for doubtful accounts by regularly evaluating individual customer receivables and considering each customer's financial condition, credit history and current economic conditions. We write off accounts receivable when we deem them uncollectible and record recoveries of accounts receivable previously written off when we receive them. When accounts receivable are considered past due, we do not charge interest on the balance. As of October 31, 2016 and 2015, the allowance for doubtful accounts was $92,000 and $117,000, respectively.

Inventories

Inventories are stated at the lower of cost or market. Cost is determined on a first in, first out basis. Management determines the obsolescence reserve by regularly evaluating individual inventory items, considering the age of the item, recent and expected usage and expected resale value in current and alternative markets, within current economic conditions. We provide reserves for obsolete and excess inventory when we deem the value to be impaired. As of October 31, 2016 and 2015, the obsolescence reserve was $1,281,000 and $288,000, respectively. Losses on lower-of-cost or-market inventory valuation of $670,000 and $354,000 were recorded in the year ended October 31, 2016 related to impairment of Resmon PRO FOT and SleepVirtual inventories, respectively, each of which are products purchased by the Company from third-party manufactures as a strategic initiative to diversify its product portfolio and leverage existing sales channels.

Property and Equipment

Property and equipment acquired are carried at cost. Equipment, computers and furniture, and fixtures are depreciated using the straight-line method over the estimated useful lives of the assets, which range from three to ten years. Leasehold improvements are depreciated using the straight-line method over the shorter of the lease term or the estimated useful life of the asset. Expenditures for repairs and maintenance are charged to expense as incurred.

Intangible Assets

Definite-lived intangible assets consist of (i) Medical Graphics developed technology (currently fully amortized); (ii) various acquired Medisoft identified and valued intangible assets including developed technology, trademarks and trade names, customer and distributor relationships, which are amortized over four to ten years; (iii) patent costs, which are amortized on a straight-line basis over five to ten years; and (iv) Medical Graphics capitalized software, consisting of (x) software in service, which historically is generally being amortized over five years, and (y) software that has not yet been placed in service as of October 31, 2016 and is not yet being amortized.

In connection with the purchase accounting for Medisoft, the Company assigned values to other identifiable intangible assets based on Company-determined valuations. In making these determinations, the Company considered current information that may have included reports developed in part by independent third-party appraisers. The techniques used by these appraisers may have included (i) identifying information for comparable market examples, where available, and (ii) analyzing estimated future cash flows of each project, technology or identified intangible asset and discounting these net cash flows using an appropriate risk-adjusted rate of return.

Goodwill

ASC 805, *Business Combinations*, establishes the authoritative guidance setting out principles and requirements for how an acquirer recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed and the goodwill acquired. The underlying purchase method of accounting for acquisitions within this guidance requires that assets acquired and liabilities assumed be recorded at their fair value at the acquisition date and includes the capitalization of purchased in-process research and development and the expensing of acquisition costs.

When a company is acquired, the purchase price is allocated among net tangible assets, in-process research and development, other identifiable intangible assets and the remainder, if any, is recognized as goodwill. Goodwill represents the excess of the aggregate purchase price over the fair value of net assets acquired and is not amortized, in accordance with ASC 350, *Intangibles-Goodwill and Other*. However, the Company will periodically assess the qualitative factors to determine whether events or circumstances lead to a determination that it is more likely than not that the fair value of the reporting unit is less than its carrying amount and on September 30 of each fiscal year, perform its annual impairment test as required by ASC 350. If the Company determines that the goodwill is impaired, it will record this impairment in its financial statements. During the fiscal 2016 fourth quarter, management met with our Board of Directors to present, discuss and obtain approval of the fiscal 2017 budget for Medical Graphics and Medisoft. During this meeting, Medisoft's fiscal 2017 revenue, gross margin and operating expense metrics were forecast to be comparable to fiscal 2016 actual results. The fiscal 2017 Medisoft budget that was approved by the Board forecast less favorable results than the preliminary budget the Company had forecast when it reviewed potential triggering events during the fiscal 2016 third quarter. Using the less favorable fiscal 2017 Medisoft budget as the baseline, management developed a long-range financial projection that it used to determine an enterprise fair value for Medisoft. The outcome of this long-range projection showed lower revenue and profitability for future years than what the Company had forecast in the past. As a result, the Company recorded a charge of $3,313,000 for the impairment of the full balance of the goodwill from the Medisoft acquisition for the year ended October 31, 2016. For additional information, see Note 3 to the consolidated financial statements, "Medisoft Acquisition Matters."

Fair Value of Financial Instruments

The carrying amount for accounts receivable and accounts payable approximates fair value due to the immediate or short-term maturity of these financial instruments.

Because the Company's financing obligations included variable interest rates, the carrying amount of the obligations approximated the fair value of these obligations.

Income Taxes

The Company uses the asset and liability method of accounting for income taxes in accordance with FASB ASC 740, *Income Taxes*. The Company recognizes deferred tax assets and liabilities for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which the Company expects these temporary differences to be recovered or settled. See Note 12 to the consolidated financial statements, "Income Taxes."

Revenue Recognition

The Company recognizes revenue when persuasive evidence of an arrangement exists, transfer of title has occurred or services have been rendered, the selling price is fixed or determinable and collectability is reasonably assured. The Company's products are sold for cash or on unsecured credit terms requiring payment based on the shipment date. Credit terms can vary between customers due to many factors, but are generally, on average, 30 to 60 days. Revenue, net of discounts, is generally recognized upon shipment or delivery to customers in accordance with written sales terms. Standard sales terms do not include customer acceptance conditions, future credits, rebates, price protection or general rights of return. The terms of sales to both domestic customers and international distributors are identical, although adherence to these terms is more pervasive with domestic customers than with international distributors. In instances when a customer order specifies final acceptance of the system, revenue recognition is deferred until all customer acceptance criteria have been met. Estimated warranty obligations are recorded upon shipment. In certain situations customer requested short-term bill-and-hold sale arrangements have been accommodated and accounted for in accordance with authoritative literature. Sales and use taxes are reported on a net basis, excluding them from revenues and cost of revenues.

Service contract revenue is based on a stated contractual rate and is deferred and recognized ratably over the service period, which is typically from one to five years beginning after the expiration of the standard warranty. Deferred income associated with service contracts was $7,551,000 and $6,173,000 as of October 31, 2016 and 2015, respectively. Revenue from installation and training services provided to customers is deferred until the service has been performed or no further obligations to perform the service exist. The Company recognizes revenue related to installation and training if service is not performed within six months from equipment shipment date since the probability these services will be used by the customer after that time is remote, based on continued analysis of historical information. The amount of deferred installation and training revenue was $533,000 and $412,000 as of October 31, 2016 and 2015, respectively.

When a sale involves multiple deliverables, such as equipment, installation services and training, the amount of the sale consideration is allocated to each respective element based on the relative selling price and revenue is recognized when revenue recognition criteria for each element are met. Consideration allocated to delivered equipment is equal to the total arrangement consideration less the selling price of installation and training. The selling price of installation and training services is based on specific objective evidence, including third-party invoices.

No customer accounted for more than 10% of revenue in the years ended October 31, 2016 or 2015.

Advance Payments from Customers

The Company typically does not receive advance payments from its customers in connection with the sale of its products. The Company occasionally enters into an arrangement under which a customer agrees to purchase a large quantity of product to be delivered over a period of time. Depending on the size of these arrangements, the Company may negotiate an advance payment from these customers. Advance payments from customers aggregated $151,000 and $96,000 as of October 31, 2016 and 2015, respectively. Revenue recognition for customer orders that include advance payments is consistent with the Company's revenue recognition policy described above.

Research and Development Costs

All research and development costs are charged to operations as incurred.

Internal Software Development Costs

Internal software development costs consist primarily of internal salaries and consulting fees for developing software platforms for sale to or use by customers within equipment the Company sells. We capitalize costs related to the development of our software products because the Company will use these software products as an integral part of a product or process to be sold or leased. Capitalized software is primarily related to the development of our next-generation platform and enhancements to our existing Breeze Suite platform. Capitalized software may also include other less significant projects supporting software for separate sale or for internal use.

We capitalize costs related to software developed for new products and significant enhancements of existing products once we reach technological feasibility and we have completed all research and development for the components of the product. We amortize these costs on a straight-line basis over the estimated useful life of the related product, generally five, but not to exceed ten years, commencing with the date the product becomes available for general release to our customers. We amortize costs for internal use software over the expected use periods of the software (See Note 7). The achievement of technological feasibility and the estimate of a product's economic life require management's judgment. Any changes in key assumptions, market conditions or other circumstances could result in an impairment of the capitalized software asset and a charge to our operating results. During the year ended October 31, 2016 and 2015, $245,000 and $266,000 of impairment was recorded in costs of equipment, supplies and accessories revenue in relation to the Company's Lab Retriever software, which was deemed to have no future value as of July 31, 2016, and the Company's Breeze WebReview software platform, which was deemed to have no future value as of July 31, 2015, respectively.

Shipping and Handling Costs

The Company includes shipping and handling revenues in net revenues and shipping and handling costs in cost of revenues.

Medical Device Excise Taxes

Effective January 1, 2013, the Company became subject to the Medical Device Excise Tax levied on registered medical device sales under the Patient Protection and Affordable Care Act ("ACA") enacted in 2010. The ACA requires the Company to pay 2.3% of the taxable sales value of devices sold. Qualifying sales are recorded on a gross basis. For the years ended October 31, 2016 and 2015, the Company recorded $18,000 and $189,000, respectively, as an addition to costs of equipment, supplies and accessories revenues. Effective January 1, 2016, the Medical Device Excise Tax was suspended for a period of two years and will not be imposed during that time period.

Net Income (Loss) per Share

Basic income (loss) per share is computed by dividing net income (loss) by the weighted average shares outstanding during the reporting period. Diluted income per share is computed similarly to basic income (loss) per share except that the weighted average shares outstanding are increased to include additional shares from the assumed exercise of stock warrants and options, if dilutive, as well as the dilutive effect of any unvested restricted shares. Diluted loss per share does not include any of these dilutive effects in its calculation. The number of additional dilutive shares is calculated by assuming that outstanding stock options were exercised and that the proceeds from the exercise were used to acquire shares of common stock at the average market price during the reporting period.

As of October 31, 2015, stock warrants, options and unvested restricted shares of 391,000 were not included as their effect is anti-dilutive. Due to the loss for the year ending October 31, 2016, all stock warrants, options, and unvested restricted shares were anti-dilutive.

Shares used in the income (loss) per share computations for the years ended October 31, 2016 and 2015 are as follows:

	Year ended October 31,	
(In thousands)	**2016**	**2015**
Weighted average common shares outstanding - basic	4,312	4,238
Dilutive effect of stock options, warrants and unvested restricted shares	—	9
Weighted average common shares outstanding - diluted	4,312	4,247

Concentrations of Credit Risk

Financial instruments that subject the Company to concentrations of credit risk consist principally of accounts receivable. The Company invests cash in excess of current operating needs in accordance with its investment policy, which emphasizes principal preservation.

The Company funded the acquisition of Medisoft and related subsidiaries during fiscal 2014, in part, with a Euro-denominated intercompany loan agreement that is expected to be repaid according to its terms and as such is not of indeterminate duration. As a result, the currency gains and losses experienced on movements of Euro pricing in relationship to the United States Dollar are reflected in the statement of comprehensive income (loss) on a current basis. Net asset exposure to currency fluctuation is reflected in other accumulated comprehensive loss in the consolidated balance sheets.

Stock-Based Compensation

The Company recognizes stock-based compensation cost related to employees and directors at the grant date based on the fair value of the award using the Black-Scholes pricing model and recognizes the compensation expense on a straight-line basis over the requisite service period, which is generally the vesting period. Total stock-based compensation expense included in the Company's statements of comprehensive income (loss) for the years ended October 31, 2016 and 2015 was $679,000 and $496,000, respectively. For additional information, see Note 10 to the consolidated financial statements, "Shareholders' Equity."

Impairment of Long-Lived Assets

The Company assesses the recoverability of long-lived assets annually or whenever events or changes in circumstances indicate that expected future undiscounted cash flows might not be sufficient to support the carrying value of an asset. The Company measures the recoverability of assets to be held and used by comparing the carrying value of an asset to future net cash flows expected to be generated by the asset. If the assets are considered to be impaired, the Company recognizes the impairment as the amount by which the carrying value of the assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value less costs to sell. The Company recorded an impairment charge of $298,000 for the year ended October 31, 2016 related to two remaining patents and in-process research and development assets that were abandoned or for which future revenue and cash flows could not be forecasted within its strategic plans formed in the fiscal 2016 fourth quarter.

Legal Fees Associated with Litigation

The Company expenses legal costs relating to pending and threatened litigation matters as they are incurred.

Use of Estimates

Preparation of the consolidated financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Treasury Stock

The Company records share repurchases at cost. Under Minnesota law, there are no treasury shares.

New Accounting Pronouncements

Revenue from Contracts with Customers – In May 2014, the Financial Accounting Standards Board ("FASB") issued guidance creating Accounting Standards Codification ("ASC") Section 606, *Revenue from Contracts with Customers*. The new section will replace Section 605, *Revenue Recognition*, and creates modifications to various other revenue accounting standards for specialized transactions and industries. The section is intended to conform revenue accounting principles to a concurrently issued International Financial Reporting Standards in order to reconcile previously differing treatment between United States practices and those of the rest of the world and enhance disclosures related to disaggregated revenue information. In August 2015, the FASB deferred the effective date of the new guidance by one year, such that the updated guidance is effective for annual reporting periods beginning after December 15, 2017, and interim periods within those fiscal years. Early adoption is permitted only as of annual reporting periods beginning after December 15, 2016, including interim periods within that reporting period. The Company will adopt the new provisions of this accounting standard at the beginning of fiscal year 2019. The Company will continue its study of the implications of this statement to evaluate the expected impact on its consolidated financial statements.

Inventory Measurement – In July 2015, FASB issued ASU 2015-11, *Inventory (Topic 330) Simplifying the Measurement of Inventory* which applies to all inventory except inventory that is measured using last-in, first-out (LIFO) or the retail inventory method. Inventory measured using first-in, first-out (FIFO) or average cost is covered by the new amendments. Inventory within the scope of the new guidance should be measured at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. Subsequent measurement is unchanged for inventory measured using LIFO or the retail inventory method. The amendments will take effect for public business entities for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. The new guidance should be applied prospectively, and earlier application is permitted as of the beginning of an interim or annual reporting period. The Company is evaluating the impact of the standard on the consolidated financial statements.

Employee Share-based Payment Accounting – In March 2016, the FASB issued ASU 2016-09, *Income Taxes (Topic 718) Improvements to Employee Share-based Compensation Accounting,* which simplifies various aspects of accounting for share-based payments to employees. Key provisions of the new standard include requiring excess tax benefits and shortfalls to be recorded as income tax benefit or expense in the income statement rather than in equity, and permitting an election to record the impact of pre-vesting forfeitures as they occur. The new guidance is effective fiscal years beginning after December 15, 2016, with early adoption available. The Company elected to early adopt ASU 2016-09 during the quarter ended October 31, 2016, retroactive to November 1, 2015. See Note 12 of the consolidated statements "Income Taxes" for details of the impact to the Company's consolidated financial statements.

Lease Accounting – During February 2016, FASB issued ASU No. 2016-02, *Leases*. ASU No. 2016-02 was issued to increase transparency and comparability among organizations by recognizing all lease transactions (with terms in excess of 12 months) on the balance sheet as a lease liability and a right-of-use asset (as defined). ASU No. 2016-02 is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years, with earlier application permitted. Upon adoption, the lessee will apply the new standard using a modified retrospective transition method. The Company is currently assessing the effect that ASU No. 2016-02 will have on its consolidated financial statements.

(3) Medisoft Acquisition Matters

On August 1, 2014, MGC Diagnostics Corporation acquired 100% of the stock of Medisoft SA (“Medisoft”), through its newly established wholly-owned subsidiary, MGC Diagnostics Belgium S.P.R.L., a private limited liability company. Medisoft, based in Sorinnes, Belgium, was a privately held manufacturer of cardiorespiratory diagnostics products, with operating subsidiaries in France, Germany and Italy. The Company is using the acquisition to expand its product range and provide a platform for global expansion outside the United States.

The Company acquired Medisoft for total cash consideration of €5,780,000 ($7,745,000). In addition, at closing, MGC Diagnostics issued to the Medisoft selling shareholders warrants to purchase 168,342 shares of MGC Diagnostics common stock at a price of $7.96 per share. The warrants have a three-year term expiring on August 1, 2017. The value of the warrants was approximately €314,000 ($421,000). The warrants were valued at $2.50 per share using the Black-Scholes model assuming an expected life of three years; risk free interest rate of 1.0%; volatility of 45.0% and dividend yield of 0%.

Of the total cash consideration, €4,067,000 ($5,449,000) was paid to the Medisoft former shareholders to purchase the Medisoft stock and €1,713,000 ($2,296,000) was used to retire existing Medisoft indebtedness.

In the quarter ended July 31, 2015, the Company adjusted the initial purchase price allocation as of the August 1, 2014 acquisition date to reflect modifications to the fair value of certain assets and liabilities. These adjustments reflected the addition of unrecorded liabilities that existed at the acquisition date, partially offset by approximately $447,000 in cash from a bank guarantee that was established as part of the July 2014 stock purchase agreement to compensate the Company for potential violations of representations and warranties in the agreement.

The goodwill value that resulted from this acquisition was principally derived from the nature and quality of the products offered that are complementary to the Company's current business, Medisoft's reputation in the market, synergies that were expected from markets outside the United States when combined with the Company's existing foreign operations and the competitive cost structure that the acquired operations offer. The goodwill is not deductible for tax purposes because the Company acquired 100% of the outstanding shares of Medisoft and its wholly-owned subsidiaries. No changes occurred to recorded goodwill other than as described above and the effects of currency translation in the consolidated balance sheet as of October 31, 2015. The Company performed its annual review of the goodwill valuation as of September 30, 2016 given its judgment that there had been no earlier triggering events. During the fiscal 2016 fourth quarter, management met with our Board of Directors to present, discuss and obtain approval of the fiscal 2017 budget for Medical Graphics and Medisoft. During this meeting, Medisoft's fiscal 2017 revenue, gross margin and operating expense metrics were forecast to be comparable to fiscal 2016 actual results. The fiscal 2017 Medisoft budget that was approved by the Board forecast less favorable results than the preliminary budget the Company had forecast when it reviewed potential triggering events during the fiscal 2016 third quarter. Using the less favorable fiscal 2017 Medisoft budget as the baseline, management developed a long-range financial projection that it used to determine an enterprise fair value for Medisoft. The outcome of this long-range projection showed lower revenue and profitability for future years than what the Company had forecast in the past. The lower long-range projection resulted in an implied enterprise fair value for Medisoft that was significantly below its book carrying value, resulting in the full impairment of goodwill. As a result, the Company recorded a charge of $3,313,000 for the impairment of the full balance of the goodwill from the Medisoft acquisition. Cumulative foreign exchange translation losses with respect to goodwill valuation of $11,000 and $725,000 as of October 31, 2016 and 2015, respectively, are included in accumulated other comprehensive loss as reported in the consolidated balance sheet.

(4) Fair Value Measurements

A hierarchy for inputs used in measuring fair value is in place that distinguishes market data between observable independent market inputs and unobservable market assumptions by the reporting entity. The hierarchy is intended to maximize the use of observable inputs and minimize the use of unobservable inputs by requiring that the most observable inputs be used when available. Three levels within the hierarchy may be used to measure fair value:

- Level 1: Inputs are unadjusted quoted prices in active markets for identical assets and liabilities.
- Level 2: Inputs include observable data points such as (i) quoted prices for similar assets or liabilities in active markets, (ii) quoted prices for identical or similar assets or liabilities in markets that are not active, and (iii) inputs (other than quoted prices) such as interest rates and yield curves that are directly or indirectly observable for the asset or liability.
- Level 3: Inputs are generated from model-based techniques that use significant assumptions not observable in the market. These unobservable assumptions reflect an entity's own estimates of assumptions that market participants would use in pricing the asset or liability.

As discussed in Note 3, we tested our goodwill for impairment as of September 30, 2016. As part of this impairment testing, we determined the fair value of all of Medisoft's assets and liabilities, many of which were based on discounted cash flows analysis and forecasted future operating results, which represent level 3 inputs. As a result of our testing, we recorded a non-cash impairment charge of $3,313,000 to fully impair our goodwill. The following table provides a reconciliation of the beginning and ending balances of our goodwill intangible asset:

(In thousands)	Total carrying Value at October 31
Beginning balance - goodwill	$ 3,313
Impairment charge	(3,313)
Ending balance - goodwill	$ —

As of October 31, 2016 and 2015 the Company did not have any assets or liabilities measured at fair value on a recurring basis.

(5) Inventories

Inventories consisted of the following as of October 31, 2016 and 2015:

(In thousands)	2016	2015
Current Assets:		
Raw materials	$ 2,936	$ 3,486
Work-in-process	827	864
Finished goods	1,153	2,409
	4,916	6,759
Non-current Assets:		
Finished goods	115	—
	$ 5,031	$ 6,759

(6) Property and Equipment

Property and equipment consisted of the following as of October 31, 2016 and 2015:

(In thousands)	2016	2015
Land and buildings	$ 3,098	$ 1,952
Furniture and fixtures	2,849	2,803
Equipment	1,356	1,363
Leasehold improvements	83	1,207
	7,386	7,325
Less: accumulated depreciation	(4,754)	(4,431)
	$ 2,632	$ 2,894

Depreciation expense for the both of the years ended October 31, 2016 and 2015 was $439,000.

(7) Intangible Assets

Intangible assets consisted of the following as of October 31, 2016 and 2015:

(In thousands)	2016	2015
Intangible assets:		
Developed technology	$ 7,802	$ 7,771
Customer and distributor relationships	373	375
Trademarks and trade names	254	254
Software	849	247
Capitalized software in progress	2,841	2,705
	12,119	11,352
Less: accumulated amortization	(7,908)	(7,047)
	$ 4,211	$ 4,305

The Company amortizes the intangible assets related to developed technology, patents and trademarks using the straight-line method over the estimated useful lives of the assets, which range from five to ten years. Total amortization expense was $886,000 and $612,000 for the years ended October 31, 2016 and 2015, respectively. Following the annual review for impairment, an impairment charge of $298,000 was included in amortization expense for the year ended October 31, 2016 in relation to the full impairment of two acquired patents and in-process research and development assets that were abandoned or for which future revenue and cash flow could not be forecasted within the Company's strategic efforts. Of the total, amortization expense related to software costs of $336,000 and $379,000 is included in cost of equipment, supplies and accessories revenues for the years ended October 31, 2016 and 2015, respectively. Amortization expense classified in cost of equipment, supplies and accessories revenue for the years ended October 31, 2016 and 2015 includes $245,000 and $266,000, respectively, of software development costs that were written off to fully impair two software products that were deemed to have no future value.

The Company estimates it will incur the following amortization expense in future fiscal years based on the intangible assets the Company expects to have placed in service at the end of fiscal 2017:

(In thousands)	Amortization
2017	$ 566
2018	549
2019	508
2020	483
2021	420
Thereafter	1,536
	$ 4,062

This table does not include estimated amortization expense of $87,000 for patents included in “Developed technology,” not expected to be placed into service until after fiscal 2017, and capitalized software costs of $62,000 for software the Company expects to place into service after fiscal 2017. The Company capitalized software development costs of $738,000 and $740,000 during the years ended October 31, 2016 and 2015, respectively. Upon completion of these development projects, the Company expects to begin to amortize these capitalized software costs over a ten year period.

(8) Warranty Reserve

Sales of the Company’s equipment are subject to a warranty obligation. Equipment warranties typically extend for a period of twelve months from the date of installation. Standard warranty terms are included in customer contracts. Under the terms of these warranties, the Company is obligated to repair or replace any components or assemblies that it deems defective in workmanship or materials. The Company reserves the right to reject warranty claims if it determines that failure is due to normal wear, customer modifications, improper maintenance or misuse. The Company maintains a warranty reserve that reflects the estimated expenses it will incur to honor the warranties on its products. The Company adjusts the warranty reserve based on the number and type of equipment subject to warranty and the remaining months of warranty coverage. The warranty reserve adjustment reflects the Company’s historical warranty experience based on the type of equipment.

Warranty provisions and claims for the years ended October 31, 2016 and 2015 were as follows:

(In thousands)	2016	2015
Balance, beginning of period	$ 147	$ 109
Warranty provision based on units sold	273	271
Periodic reserve adjustments	(9)	69
Warranty claims	(260)	(302)
Balance, end of period	$ 151	$ 147

(9) Financing Arrangements

On July 24, 2014, the Company entered into a credit agreement ("Agreement") with BMO Harris Bank NA ("Bank").

The Agreement, as amended, included a $4.0 million term loan and $250,000 revolving credit facility, which was also available for standby and commercial letters of credit. The term loan, which bore interest at a floating rate, was payable in equal monthly principal installments of $66,667 over a five-year period commencing August 31, 2014 and was evidenced by a term note. The Company funded the original $4.0 million under the term loan on July 24, 2014. The Company used these proceeds in connection with its acquisition of Medisoft SA. The revolving credit facility had a one-year term, which had been renewed through July 31, 2016. The Company could use the revolving credit facility from time to time for working capital or general corporate needs. The revolving credit facility was evidenced by a revolving note.

On June 14, 2016, the Company paid off the remaining balance of the term loan and terminated the revolving credit facility.

(10) Shareholders' Equity

Stock Options, Restricted Stock Awards and Other Stock-based Compensation

At a Special Meeting of Shareholders held on August 22, 2007, the shareholders approved the MGC Diagnostics Corporation 2007 Stock Incentive Plan (the "2007 Plan") and reserved 250,000 shares of its common stock for issuance under the 2007 Plan. The 2007 Plan has been amended several times and currently authorizes the issuance of up to 1,150,000 shares under various incentive forms. As of October 31, 2016, stock options for 371,733 shares were outstanding, 81,157 shares had been issued upon exercise of stock options, 404,857 shares had been issued pursuant to fully vested restricted stock awards, 10,221 shares had been issued as performance share awards, 19,906 shares were issued in lieu of Director regular cash retainer fees, 41,497 shares were subject to unvested restricted stock awards and 220,629 shares were available for future grant in some form. Under the terms of the 2007 Plan, as amended, up to 1,150,000 shares may be issued pursuant to incentive stock awards, up to 650,000 may be issued as incentives for non-employee directors and up to 650,000 may be issued pursuant to restricted stock grants. As of October 31, 2016, these sub-limits permit a maximum of 203,646 additional restricted stock awards to be issued.

The 2007 Plan provides that incentive stock options and nonqualified stock options to purchase shares of common stock may be granted at prices determined by the Compensation Committee, except that the purchase price of incentive stock options may not be less than the fair market value of the stock at the date of grant. Options under the plan are subject to vesting schedules established on the date of grant. In addition, the 2007 Plan allows the granting of restricted stock awards, stock appreciation rights and performance stock.

Total stock-based compensation expense included in the Company's statements of comprehensive income (loss) was $679,000 and $496,000 for the years ended October 31, 2016 and 2015, respectively.

Stock Options

A summary of the Company's stock option activity for the years ended October 31, 2016 and 2015 is presented in the following table:

	For the Year ended			
	October 31, 2016		October 31, 2015	
	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Outstanding at beginning of year	177,900	$ 6.48	52,650	$ 7.01
Granted	208,638	6.79	150,000	6.07
Exercised	—	—	(11,137)	5.13
Expired or cancelled	(14,805)	6.63	(13,613)	5.16
Outstanding at end of year	371,733	$ 6.64	177,900	$ 6.48

The following table summarizes information concerning stock options outstanding as of October 31, 2016:

Exercise Prices	Number Outstanding	Weighted Average Remaining Contractual Life	Number Subject to Exercise
$ 5.65	10,000	6.45	—
5.99	20,000	2.56	20,000
6.07	150,000	5.58	50,001
6.63	11,000	6.10	3,663
6.76	4,900	6.04	4,900
6.77	33,333	2.25	33,333
7.05	120,000	6.86	—
9.12	22,500	4.59	14,999
Total	371,733	5.51	126,896

The total intrinsic value of options exercised during the year ended October 31, 2015 was $8,000. The total intrinsic value of options outstanding and exercisable as of October 31, 2016 was $365,000 and $136,000, respectively, which was calculated using the closing stock price at the end of the year less the option price of in-the-money options. The Company issues new shares when stock options are exercised. Unrecognized compensation expense related to outstanding stock options as of October 31, 2016 was $701,000 and is expected to be recognized over a weighted average period of 1.94 years.

Valuation Assumptions

The Company uses the Black-Scholes option-pricing model ("Black-Scholes model") to determine the fair value of stock options as of the grant date. The fair value of stock options under the Black-Scholes model requires management to make assumptions regarding projected employee stock option exercise behaviors, risk-free interest rates, volatility of the Company's stock price and expected dividends. The expense recognized for options granted under the 2007 Plan is equal to the fair value of stock options as of the grant date. The following table provides the weighted average fair value of options granted to employees and the related assumptions used in the Black-Scholes model for stock option grants made during the two years ended October 31, 2016:

	Options Granted September 8, 2016	Options Granted May 25, 2016	Options Granted April 11, 2016	Options Granted February 2, 2016	Options Granted December 16, 2015	Options Granted December 7, 2015	Options Granted May 28, 2015
Weighted average fair value of options granted	$ 3.25	$ 1.69	$ 2.78	$ 2.00	$ 3.35	$ 3.52	$ 3.27
Assumptions used:							
Expected life (years)	7.00	3.00	7.00	3.00	7.00	7.00	7.00
Risk-free interest rate	1.13%	0.56%	1.38%	0.54%	1.67%	1.67%	1.25%
Volatility	43.92%	40.65%	47.06%	42.82%	48.72%	48.75%	53.11%
Dividend Yield	—%	—%	—%	—%	—%	—%	—%

a) Expected life: For employee grants, the expected term of options granted is determined using historical data, the contractual terms of the options granted and other factors.

b) Risk-free interest rate: The rate is based on the U.S. Treasury zero-coupon yield curve on the grant date for a maturity similar to the expected life of the options.

c) Volatility: The expected volatility of the Company's common stock is calculated by using the historical daily volatility of the Company's stock price calculated over a period of time representative of the expected life of the options.

d) Dividend yield: The dividend yield rate is not considered in the model because the Company has not historically paid any dividends, other than the special dividends the Company paid in April 2013 and announced for payment in February 2017 (See Note 16 Subsequent Event).

Restricted Stock Awards

Restricted stock awards are awards of common stock that are subject to restrictions on transfer and to a risk of forfeiture if the holder leaves the Company before the restrictions lapse. The holder of a restricted stock award is generally entitled at all times on and after the date of issuance of the restricted shares to exercise the rights of a shareholder of the Company, including the right to vote the shares. The value of stock awards that vest over time was established by the market price on the date of its grant. A summary of the Company's restricted stock activity for the years ended October 31, 2016 and 2015 is presented in the following table:

	For the Year ended			
	October 31, 2016		October 31, 2015	
	Shares	Weighted Average Grant Date Fair Value	Shares	Weighted Average Grant Date Fair Value
Unvested at beginning of year	49,993	$ 7.61	57,035	$ 8.40
Granted	31,998	6.00	31,261	7.03
Vested	(40,494)	7.38	(38,303)	8.32
Unvested at end of year	41,497	$ 6.59	49,993	$ 7.61

Unrecognized compensation expense related to outstanding restricted stock awards to employees and directors as of October 31, 2016 was $124,000 and is expected to be recognized over a weighted average period of 0.59 years.

Director Stock Awards in Lieu of Cash Retainer Fees

The Company offers a program that allows non-employee Board members to elect and receive shares from the 2007 Plan in lieu of some or all of their quarterly cash retainer fees. During the year ended October 31, 2016 and 2015, the Company issued 7,099 and 7,057 shares, respectively, under this program. The expense was recognized at the time of share issuance and totaled $45,000 in both of the years ended October 31, 2016 and 2015.

Employee Stock Purchase Plan

The MGC Diagnostics Corporation 2003 Employee Stock Purchase Plan, as amended ("Purchase Plan"), allows participating employees to purchase up to 200,000 shares of the Company's common stock at a discount through payroll deductions. The Purchase Plan is available to all employees subject to eligibility requirements. Under the Purchase Plan, participating employees may purchase the Company's common stock on a voluntary after-tax basis at a price that is the lower of 85% of the fair market value of one share of common stock at the beginning or end of each stock purchase phase. The Purchase Plan is carried out in six-month phases, with phases beginning on January 1 and July 1 of each calendar year. For the phases that ended on December 31, 2015 and June 30, 2016, employees purchased 11,248 and 8,481 shares at prices of $4.47 and $5.54 per share, respectively. For the phases that ended on December 31, 2014 and June 30, 2015, employees purchased 12,040 and 11,711 shares at prices of $5.44 and $4.45 per share, respectively. As of October 31, 2016, the Company has withheld approximately $21,000 from employees participating in the phase that began on July 1, 2016. As of October 31, 2016, 49,353 shares of common stock were available for future purchase under the Purchase Plan.

The following table presents the classification of pre-tax stock-based compensation expense recognized in the consolidated statements of comprehensive income (loss) for the years ended October 31, 2016 and 2015:

	Year ended October 31,	
(In thousands)	**2016**	**2015**
Cost of revenues	$ 3	$ 4
Selling and marketing	121	97
General and administrative	549	389
Research and development	6	6
Stock-based compensation expense	$ 679	$ 496

Tax Impact of Stock-Based Compensation

The Company reports the benefit of tax deductions in excess of recognized stock-based compensation expense on the consolidated statements of cash flows as operating cash flows. For the years ended October 31, 2016 and 2015, there were no excess tax benefits realized due to the U.S. federal valuation allowance against deferred tax asset recognition of available deductions.

(11) Leases

The Company leases domestic office and manufacturing space, and various office accessories. The building lease for the Company's present domestic office and manufacturing space expires on December 31, 2017. The Company also leases office and manufacturing space in France and Italy, which leases expire at various dates through December 31, 2020 and auto leases through 2021. Total lease expenses, including office and manufacturing spaces, autos and office accessories, were $460,000 and $458,000 for the years ended October 31, 2016 and 2015, respectively.

The renewal terms of the building lease for the Company's domestic office and manufacturing facility include rental payments that escalate annually at stated amounts. The lessor also agreed to make certain leasehold improvements in the early portion of the renewal period. The Company uses deferred rental liability accounts to accrue the combined effect of the future payments in relation to the lessor-funded improvements and the normal rent expense for each year, calculated as the average of the five-year committed payments. At October 31, 2013, the Company recorded $210,000 of the estimated lessor-funded leasehold improvements, with additional improvements similarly funded totaling $51,000 and $33,000 completed in the years ended October 31, 2016 and 2015, respectively. The balance of the remaining lessor-funded leasehold improvements will be recorded when completed. Future minimum lease payments under operating leases in effect as of October 31, 2016 are as follows:

(In thousands)	Amount
Year Ended October 31,	
2017	$ 501
2018	179
2019	80
2020	53
2021	8
	$ 821

(12) Income Taxes

The Company recorded a net income tax provision of $923,000 for the fiscal year ended October 31, 2016 compared to an income tax benefit of $3,549,000 for fiscal year ended October 31, 2015. The fiscal 2016 income tax expense includes U.S. deferred expense of approximately $593,000, foreign deferred expense of approximately $106,000 and U.S. current tax of $205,000 including state taxes, minimum fees and federal alternative minimum tax ("AMT"), foreign current provincial tax expenses of $1,000 and an increase in the reserve for uncertain tax positions totaling $31,000, of which $18,000 was included as a component of income tax expense. The fiscal 2015 benefit includes a tax benefit of approximately $3,111,000 as result of the Company reversing a substantial portion of the valuation allowance on its domestic deferred tax assets in addition to approximately $544,000 of foreign deferred income tax benefit recorded related to Medisoft Belgium. These tax benefits were partially offset by current estimated federal AMT, state tax expense, minimum fees, and provincial tax expense totaling $106,000 for fiscal 2015.

The Company has federal net operating loss ("NOL") and general business tax credit carry forwards; however, the utilization of some of these tax loss and tax credit carry forwards is limited under Internal Revenue Code ("IRC") §382 and §383, respectively, as a result of a IRS-deemed change in ownership that occurred in the fourth quarter of fiscal 2006. The Company estimates that the amount of federal NOL carry forward at October 31, 2016 that is not limited is approximately $6.5 million. These loss carry forwards will expire in years 2018 through 2032. None of the current loss carry forward benefits expire until 2018 after considering the statutory limitations described above. Additionally, the Company has concluded that all general business credit carry forwards generated prior to the 2006 change in ownership are limited and not available for use in future years. The Company also has federal and state combined general business credits of $461,000, which will carry forward and begin to expire in 2033. Usage of this general business credit carry forward is not limited because it was generated after the change in ownership. The Company also has $266,000 of alternative minimum tax credit carry forwards that do not expire. The alternative minimum tax credit carry forward benefits are limited by IRC §383 but their ultimate use is not affected since these do not expire. The Company also has combined foreign NOLs of approximately $4.8 million. Foreign NOL expiration varies by country; however a substantial portion of the foreign NOLs are in Belgium which do not expire.

The provision for (benefit from) income taxes was as follows:

(In thousands)	Year ended October 31, 2016	2015
Current:		
Federal	$ 78	$ 47
State	145	68
Foreign	1	(9)
	224	106
Deferred:		
Federal	$ 633	$ (3,016)
State	(40)	(95)
Foreign	106	(544)
	699	(3,655)
	$ 923	$ (3,549)

A reconciliation of the provision (benefit) for income taxes to the statutory federal rate was as follows:

	2016	2015
Federal statutory rate	(34.0)%	34.0%
State taxes, net of federal benefit	(2.6)	9.0
Valuation allowance reversal	—	(729.8)
Other changes in valuation allowance	61.8	(148.9)
Research and development credits	(5.7)	(13.9)
Non-deductible meals and entertainment	1.5	8.1
Goodwill impairment	39.8	—
Non-taxable foreign payroll subsidies	—	(6.9)
Non-deductible foreign expenses	1.4	6.7
Reserve for uncertain tax positions	0.6	(2.0)
Foreign rate differential	4.0	3.9
Adoption of ASU 2016-09	(33.7)	—
Stock-based compensation	2.5	9.8
Foreign return to provision adjustment	(3.7)	—
Other	0.5	(2.7)
Effective income tax rate	32.4%	(832.7)%

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and liabilities as of October 31, 2016 and 2015 are presented below:

(In thousands)	2016	2015
Deferred tax assets:		
Net operating loss carry forwards	$ 3,963	$ 3,969
Tax credit carry forwards	727	492
Deferred revenue	1,504	1,066
Unrealized foreign currency loss	501	486
Inventory reserve	562	223
Stock-based compensation	90	10
Accrued expenses and other	176	162
Valuation allowance	(2,723)	(963)
Total deferred tax assets	4,800	5,445
Deferred tax liabilities:		
Intangible assets	(1,571)	(1,546)
Fixed assets	(506)	(499)
Deferred rent and other	(80)	(58)
Total deferred tax liabilities	(2,157)	(2,103)
Net deferred income tax asset	$ 2,643	$ 3,342

(In thousands)	2016	2015
Deferred taxes recorded on the balance sheet:		
Deferred tax assets-Federal	$ 2,383	$ 3,016
Deferred tax assets-State	135	95
Deferred tax assets-Foreign	125	231
	$ 2,643	$ 3,342

The valuation allowance for deferred tax assets as of October 31, 2016 and 2015 was $2,723,000 and $963,000, respectively. The total valuation allowance increased by $1,760,000 for the year ended October 31, 2016 due to the adoption of ASU 2016-09 and additional valuation allowance recorded against Belgium deferred tax assets and other foreign provision to return adjustments.

In assessing the need for a valuation allowance, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income. Based on the Company's assessment of all available evidence including (i) previous three-year cumulative income before infrequent and unusual items, (ii) a history of generating income before taxes for the past three years and (iii) estimates of future Company profitability. During the third quarter of fiscal year 2015, the Company incurred a non-cash benefit of approximately $3,111,000 due to the reversal of a substantial portion of the valuation allowance on the Company's domestic deferred tax assets, based on its determination that a portion of its domestic deferred tax assets would more likely than not be realized.

In March 2016, the FASB issued ASU No. 2016-09, which simplifies various aspects of accounting for share-based payments to employees. Key provisions of the new standard include requiring excess tax benefits and shortfalls to be recorded as income tax benefit or expense in the income statement, rather than in equity, and permitting an election to record the impact of pre-vesting forfeitures as they occur. The new guidance is effective for fiscal years beginning after December 15, 2016, and interim periods within those fiscal years, with early adoption permitted. The Company elected to early adopt ASU 2016-09 during the quarter ended October 31, 2016, retroactive to November 1, 2015. The adoption of ASU 2016-09 required no retrospective adjustment to the consolidated financial statements. The adoption resulted in the addition at recognition of $2,824,000 in net operating loss ("NOL") carryforwards from excess tax benefits previously unrecorded in the consolidated financial statements. The additional NOL carryforwards resulted in an increase in the gross deferred tax assets of approximately $960,000, however, these NOLs are subject to a valuation allowance due to the Company only releasing a portion of its valuation allowance for domestic deferred tax assets in the prior year. Consequently, there was no income tax expense or benefit impact or adjustment to retained earnings during the year from the adoption.

In accounting for uncertainty in income taxes, we recognize the financial statement benefit of a tax position only after determining that the relevant tax authority would more likely than not sustain the position following an audit. For tax positions meeting the more likely than not threshold, the amount recognized in the financial statements is the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement with the relevant tax authority. The Company recognizes interest and penalties on any unrecognized tax benefits as a component of income tax expense. For the years ended October 31, 2016 and 2015, the liability for uncertainties in income taxes increased by $31,000 and $4,000, respectively. The Company does not expect the amount of reserves for uncertain tax positions to change significantly in the next twelve months.

A reconciliation of the beginning and ending amount of unrecognized tax benefits as of October 31, 2016 and 2015 follows:

	Year ended October 31,	
(In thousands)	**2016**	**2015**
Balance, beginning of year	$ 61	$ 57
Current year additions	31	52
Current year decreases related to prior year tax positions	—	(48)
Balance, end of year	$ 92	$ 61

If recognized, approximately $59,000 of these benefits would lower the effective tax rate. The remaining $33,000 if recognized would result in a deferred tax asset subject to a valuation allowance and therefore not affect the effective rate. The unrecognized tax benefits are related to potential state income tax liabilities in prior years including interest as well as research and development credits.

The Company is subject to income taxes in the U.S. federal and various state and international jurisdictions. With few exceptions, the Company is no longer subject to U.S. federal and state income tax examinations by tax authorities for years ending prior to 1998. We are generally subject to U.S. federal and state examinations for all tax years since 1998 due to our net operating loss carryforwards and utilization of the carryforwards in years still open under statute. The expiration of the statute of limitations related to the various state income tax returns that the Company file varies by state. There is no statute of limitations for assessments related to jurisdictions where the Company may have a nexus but has chosen not to file an income tax return. The expiration of the statute of limitations related to foreign jurisdictions varies by country.

(13) 401(k) Savings Plan

Substantially all domestic employees are eligible to participate in the 401(k) Savings Plan (“Savings Plan”). Employees may make pre-tax voluntary contributions to their individual accounts up to a maximum of 50% of their aggregate compensation, but not more than currently allowable limits established by the Internal Revenue Service. The Savings Plan permits matching and discretionary employer contributions. The Company matches 50% of the first 6% of an employee’s annual compensation. Company contributions to the Savings Plan were $243,000 and $230,000 for the years ended October 31, 2016 and 2015, respectively.

(14) Segment Reporting

The Company operates in a single industry segment, the manufacture and sale of cardiorespiratory diagnostic products. The Company sells its products into many countries throughout the world. Net sales and long-lived assets by geographic area are shown in the following tables.

	Year ended October 31,	
(In thousands)	**2016**	**2015**
Revenues from unaffiliated customers:		
United States	$ 30,635	$ 26,923
Americas	1,066	1,209
Europe, Middle East, Africa	6,232	7,052
Asia Pacific	2,107	2,283
	$ 40,040	$ 37,467

	October 31, 2016	October 31, 2015
Long-lived assets:		
United States	$ 6,829	$ 7,032
Europe	2,796	6,840
	$ 9,625	$ 13,872

(15) Litigation

The Company is also subject to certain claims and lawsuits that have been filed in the ordinary course of business. From time to time, the Company initiates lawsuits against others to enforce patents or to seek collection of debts in the ordinary course of business. The Company is not subject to any pending litigation except as set forth below.

MGC Diagnostics Corporation v. Mr. Guy Martinot and Dr. Jean-Benoît Martinot

In November 2015, the Company commenced litigation in the French-speaking courts of Brussels, Belgium against the selling shareholders of Medisoft for violations of representations and warranties in the stock purchase agreement dated as of July 10, 2014 under which the Company purchased Medisoft. The Company alleged that these violations resulted in Company damages of approximately €985,400 ($1,084,000). In May 2015, the Company received payment of €406,700 ($447,000) with respect to these alleged violations pursuant to a bank guaranteed contractual escrow fund and has reflected that payment on its books and records. On May 30, 2016, the defendant selling shareholders filed an answer to dispute all claims and asserted a counterclaim against the Company seeking to recover the €406,700 that was paid to the Company in May 2015 and legal costs. The Company continues to believe the Medisoft selling shareholders are liable to it for violations of representations and warranties in the stock purchase agreement and intends to continue to pursue this matter. The Company has not accrued any losses related to the litigation or accrued any related legal costs it has not yet incurred. The Company currently expects that this litigation process may continue until the fall of 2017.

Neurovirtual USA, Inc. v. MGC Diagnostics Corporation

On January 12, 2016, Neurovirtual USA, Inc. commenced a lawsuit against the Company in the United States District Court for the Southern District of New York asserting breach of contract, anticipatory breach of contract, and fraud in the inducement. Neurovirtual commenced the lawsuit after MGC, in a letter dated December 17, 2015, informed Neurovirtual that MGC was rescinding a distribution agreement dated March 31, 2014 between Neurovirtual and MGC because, among things, Neurovirtual failed to comply with applicable Minnesota law in connection with the distribution agreement. Neurovirtual alleged (i) damages of $1,055,120 for breach of contract, (ii) damages of $1,363,850 for anticipatory breach of contract; and (iii) damages of no less than $5.0 million for fraud in the inducement. MGC believed that its rescission of the distribution agreement was proper and that it had valid defenses to the Neurovirtual claims.

The Company entered into a settlement agreement on June 14, 2016 and made a one-time cash payment of $650,000 to Neurovirtual. Each party agreed to dismiss with prejudice the lawsuit and all claims against the other party. As part of the settlement, the Company has retained Neurovirtual sleep diagnostics inventory that it purchased and Neurovirtual will continue to support this inventory pursuant to the distribution agreement. The Company has no continuing obligation to purchase additional Neurovirtual diagnostics products.

The Company recorded a loss of $650,000, which is included in general and administrative expense for the year ended October 31, 2016. The Company recorded a loss on impairment with respect to a portion of this inventory of $354,000 in the quarter ended October 31, 2016 resulting from its ongoing analysis of projected unit sales in future periods, as adjusted at that time. The Company continues to carry inventory and other noncurrent assets as of October 31, 2016 valued at $64,000 and $115,000, respectively.

(16) Subsequent Event

On January 25, 2017, the Company declared a special cash dividend of $0.70 per share on its outstanding common stock. The dividend will be paid on February 24, 2017 to holders of record as of February 10, 2017.

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

During the two most recent fiscal years, there were no disagreements between us and our independent registered public accounting firm on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which would have caused them to make reference thereto in their report on the consolidated financial statements for such fiscal years.

Item 9A. Controls and Procedures.

(a) Evaluation of Disclosure Controls and Procedures

The Company maintains disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934) that are designed to ensure that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in SEC rules and forms and (ii) accumulated and communicated to the Company's management, including its principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure. In connection with the filing of this Form 10-K, management evaluated, under the supervision and with the participation of the Company's Chief Executive Officer (CEO), Todd M. Austin, and Chief Financial Officer (CFO), Wesley W. Winnekins, the effectiveness of the design and operation of the Company's disclosure controls and procedures as of October 31, 2016. Based on this assessment, management identified a material weakness in our internal control over financial reporting as described below. As a result of this material weakness, management concluded that, as of October 31, 2016, our internal control over financial reporting was not effective based on the *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "Framework").

(b) Management Report on Internal Control over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting, as that term is defined in Rule 13a-15(f) and 15d-15(f) of the Securities Exchange Act. Under the supervision and with the participation of the Company's management, including the CEO and CFO, the Company conducted an evaluation of the effectiveness of internal control over financial reporting based on the Framework. Based on management's testing and evaluation, we concluded that our internal control over financial reporting was not effective, and as a result, the three significant deficiencies, which when evaluated in aggregate, resulted in a material weakness in internal controls.

The identified material weakness arose as a result of significant deficiencies in management's processes and controls over the development of management's estimations of valuation reserves for allowance for doubtful accounts and inventory valuation reserves that occurred during the fourth quarter of 2016:

1. We concluded that controls surrounding the gathering, interpretation and evaluation of supporting documentation for SleepVirtual sales forecasts were ineffective in determining the appropriate value of the SleepVirtual inventory on hand.
2. We concluded that Company policies and procedures in place surrounding demonstration inventory were not adequately followed or reviewed to ensure the demonstration inventory units were monitored for the amount of time they were deployed for selling activities. The aging of some units required an inventory valuation reserve to properly reflect the estimated net realizable value of the demonstration units in inventory.
3. We concluded that the controls surrounding estimation of collectability of aged international accounts receivable were not adequate to establish the correct reserve for a specific customer as of October 31, 2016.

The material weakness resulted in misstatements in the recorded amount of inventory valuation reserves and allowance for doubtful accounts reserves that were corrected in the fourth quarter of 2016 prior to issuance of the Company's consolidated financial statements. We concluded that a reasonable possibility existed that a material misstatement in the Company's consolidated financial statements would not have been prevented or detected on a timely basis.

Remediation Plan for Material Weaknesses in Internal Control over Financial Reporting

During our 2017 fiscal quarter beginning February 1, 2017, we intend to implement the following remediation plan to address the material weakness describe above:

- Strengthen the quarterly monitoring of our international open accounts receivable aging to determine an appropriate allowance for uncollectable accounts.

- Strengthen oversight of unit sales projections on inventory purchased from third party manufacturers for resale and critically assess the reasonableness of assumptions for expected selling prices and gross margins used to determine the appropriateness of lower-of-cost-or-market reserves.

- Establish structured training with sales personnel on existing Company corporate policies and procedures to manage and value its demonstration inventory.

- Conduct a thorough review of demonstration inventory aging to ensure appropriate valuation reserves have been established.

(c) Inherent Limitations on Control Systems

Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, will be or have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate.

(d) Changes in Internal Control

There have been no changes in internal control over financial reporting that occurred during the fiscal 2016 fourth quarter that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting, except as noted above. The Company is taking steps to ensure that it remediates the material weakness by implementing enhanced control procedures over accounting for valuation reserve estimation practices as noted above.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by Item 401 of Regulation S-K will be set forth under the caption "Election of Directors" in the Company's definitive proxy material for its March 22, 2017 Annual Meeting of Shareholders ("2017 Proxy Statement"), and is incorporated herein by reference.

The information with respect to the Company's executive officers required by Item 401(b) of Regulation S-K is set forth under Item 1 of this Form 10-K under the caption "Executive Offices of the Registrant."

The information called for by Item 405 under Regulation S-K will be set forth under the caption "Section 16(a) Beneficial Ownership Reporting Compliance," in the Company's 2017 Proxy Statement, and is incorporated herein by reference.

The Company has adopted a Code of Ethics and Business Conduct applicable to all officers of the Company as well as certain other key accounting personnel. A copy of the Code of Ethics and Business Conduct can be obtained free of charge upon written request directed to the Company's Secretary at the executive offices of the Company. Additional information about our Code of Ethics and Business Conduct required pursuant to Item 406 of Regulation S-K will be set forth under the caption Code of Ethics and Business Conduct in the Company's 2017 Proxy Statement, and is incorporated herein by reference.

The information required pursuant to Item 407 of Regulation S-K will be set forth under the caption "Corporate Governance" in the Company's 2017 Proxy Statement, and is incorporated herein by reference.

Item 11. Executive Compensation

The information called for by Item 402 of Regulation S-K will be set forth under the caption "Executive Compensation" in the Company's 2017 Proxy Statement, and is incorporated herein by reference.

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

The information called for by Item 403 under Regulation S-K will be set forth under the captions "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" in the Company's 2017 Proxy Statement, and is incorporated herein by reference.

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

The information required by Item 404 of Regulation S-K will be provided in the Company's 2017 Proxy Statement, to the extent applicable, and such information, if any, is incorporated herein by reference.

The information required by Items 407(a) of Regulation S-K will be set forth under the caption "Corporate Governance," in the Company's 2017 Proxy Statement, and is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services

The information called for by Item 14 of Form 10-K and 9(e) of Schedule 14A will be set forth under the caption "Ratification of Appointment of Independent Registered Public Accounting Firm" in the Company's 2017 Proxy Statement, and is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

(a) 1. Financial Statements of Registrant

The following consolidated financial statements of MGC Diagnostics Corporation and Subsidiaries are set forth in Item 8 of this Form 10-K:

Report of Independent Registered Public Accounting Firm, Baker Tilly Virchow Krause, LLP.

Consolidated Balance Sheets as of October 31, 2016 and 2015.

Consolidated Statements of Comprehensive Income (Loss) for the years ended October 31, 2016 and 2015.

Consolidated Statements of Cash Flows for the years ended October 31, 2016 and 2015.

Consolidated Statements of Shareholders' Equity for the years ended October 31, 2016 and 2015.

Notes to Consolidated Financial Statements.

(a) 2. Financial Statement Schedules

None.

(a) 3. Exhibits

3.1 MGC Diagnostics Corporation Amended and Restated Articles of Incorporation (incorporated by reference to Exhibit 3.1 contained in the Company's Form 10-Q for the quarter ended July 31, 2012).

3.2 MGC Diagnostics Corporation Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 contained in the Company's Form 10-Q for the quarter ended July 31, 2012).

4.1 Form of MGC Diagnostics Corporation Warrant dated August 1, 2014 (incorporated by reference to Exhibit 4.1 to the Form 8-K dated August 1, 2014).

10.1 * MGC Diagnostics Corporation Restated 2003 Employee Stock Purchase Plan, as amended through May 30, 2012 (incorporated by reference to Appendix A to the definitive proxy statement dated April 11, 2012, and filed with the SEC on April 17, 2012 for the Annual Meeting of Shareholders held on May 30, 2012).

10.2 * MGC Diagnostics Corporation 2007 Stock Incentive Plan (incorporated by reference from Exhibit A to the definitive proxy statement dated February 4, 2016 for the annual meeting of shareholders held March 16, 2016).

10.3 * MGC Diagnostics Corporation Form of Change-in-Control Agreement (incorporated by reference to Exhibit 10.5 to Form 10-K for the year ended October 31, 2011).

10.4 * Executive Employment Agreement dated as of June 1, 2014 between MGC Diagnostics Corporation and Todd M. Austin (incorporated by reference to Exhibit 10.1 to Form 10-Q for the quarter ended July 31, 2014).

10.5 * Executive Employment Agreement dated as of June 1, 2014 between MGC Diagnostics Corporation and Matthew S. Margolies (incorporated by reference to Exhibit 10.2 to Form 10-Q for the quarter ended July 31, 2014).

10.6 * Executive Employment Agreement dated as of June 1, 2014 between MGC Diagnostics Corporation and Wesley W. Winnekins (incorporated by reference to Exhibit 10.3 to Form 10-Q for the quarter ended July 31, 2014).

10.7	Lease dated December 31, 2003 between Vadnais Heights Investment Company, MCHA Capital, LLC., Robert Tipler and Richard K. Mathews (collectively "Lessor") and Angeion Corporation (currently MGC Diagnostics Corporation) and Medical Graphics Corporation, (collectively "Lessee"), for 350 Oak Grove Parkway, St. Paul, Minnesota (incorporated by reference to Exhibit 10.6 contained in the Company's Annual Report on Form 10-KSB for the year ended October 31, 2004).
10.7.1	Lease amendment dated December 21, 2008 between Vadnais Heights Investment Company, MCHA Capital, LLC., Robert Tipler and Richard K. Mathews (collectively "Lessor") and Angeion Corporation (currently MGC Diagnostics Corporation) and Medical Graphics Corporation, (collectively "Lessee"), for 350 Oak Grove Parkway, St. Paul, Minnesota (incorporated by reference to Exhibit 10.5.1 to Form 10-K for the year ended October 31, 2008).
10.7.2	Lease amendment dated January 15, 2009 between Vadnais Heights Investment Company, MCHA Capital, LLC., Robert Tipler and Richard K. Mathews (collectively "Lessor") and Angeion Corporation (currently MGC Diagnostics Corporation) and Medical Graphics Corporation, (collectively "Lessee"), for 350 Oak Grove Parkway, St. Paul, Minnesota (incorporated by reference to Exhibit 10.5.2 to Form 10-K for the year ended October 31, 2009).
10.7.3	Lease amendment dated August 16, 2011 between VRT Properties, LLC, successor to Vadnais Heights Investment Company, MCHA Capital, LLC., Robert Tipler and Richard K. Mathews (collectively "Lessor") and Angeion Corporation (currently MGC Diagnostics Corporation) and Medical Graphics Corporation, (collectively "Lessee"), for 350 Oak Grove Parkway, St. Paul, Minnesota (incorporated by reference to Exhibit 99.1 to Form 10-Q for the quarter ended July 31, 2011).
10.7.4	Lease amendment dated June 25, 2012 between VRT Properties, LLC, successor to Vadnais Heights Investment Company, MCHA Capital, LLC., Robert Tipler and Richard K. Mathews (collectively "Lessor") and Angeion Corporation (currently MGC Diagnostics Corporation) and Medical Graphics Corporation, (collectively "Lessee"), for 350 Oak Grove Parkway, St. Paul, Minnesota (incorporated by reference to Exhibit 10.1 to Form 10-Q for the quarter ended July 31, 2012).
10.8	* MGC Diagnostics Corporation Policy on Director Election on Stock in Lieu of Quarterly Retainer (As amended, December 16, 2015) (incorporated by reference to Exhibit 10.8 to the Form 10-K for the year ended October 31, 2015).
10.9	Stock Purchase Agreement dated July 10, 2014 between MGC Diagnostics Belgium S.P.R.L., a private limited liability company, and Guy Martinot and Jean-Benoit Martinot. 2014 (incorporated by reference to Exhibit 10.1 to the Form 8-K dated August 1, 2014).
21	Subsidiaries of MGC Diagnostics Corporation.
23.1	Consent of Baker Tilly Virchow Krause, LLP, Independent Registered Public Accounting Firm.
31.1	Certifications of Chief Executive Officer pursuant to 13a-14 and 15d-14 of the Exchange Act.
31.2	Certifications of Chief Financial Officer pursuant to 13a-14 and 15d-14 of the Exchange Act.
32.	Certifications pursuant to 18 U.S.C. § 1350.
101**	The following materials from our Annual Report on Form 10-K for the fiscal year ended October 31, 2016 formatted in Extensible Business Reporting Language (XBRL): (i) Consolidated Balance Sheets, (ii) Consolidated Statements of Comprehensive Income (Loss), (iii) Consolidated Statements of Cash Flows, (iv) Consolidated Statements of Shareholders' Equity, (v) Notes to Consolidated Financial Statements and (vi) document and entity information.

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* Management contract, compensatory plan or arrangement required to be filed as an exhibit to this Form 10-K.

** Pursuant to Rule 406T of Regulation S-T, the XBRL related information in Exhibit 101 to this Annual Report on Form 10-K shall not be deemed to be "filed" for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and shall not be deemed part of a registration statement, prospectus or other document filed under the Securities Act or the Exchange Act, except as shall be expressly set forth by specific reference in such filings.

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.

MGC DIAGNOSTICS CORPORATION
(Registrant)

January 30, 2017

By /s/ Todd M. Austin
Todd M. Austin
Chief Executive 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.

Each of the undersigned hereby constitutes and appoints Todd M. Austin and Wesley W. Winnekins as the undersigned's true and lawful attorneys-in-fact and agents, each acting alone, with full power of substitution and resubstitution, for the undersigned and in the undersigned's name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, each acting alone, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all said attorneys-in-fact and agents, each acting alone, or may lawfully do or cause to be done by virtue thereof.

Name	Title	Date
/s/ Todd M. Austin Todd M. Austin	Chief Executive Officer (Principal Executive Officer)	January 30, 2017
/s/ Wesley W. Winnekins Wesley W. Winnekins	Chief Financial Officer & Chief Risk Officer (Principal Financial Officer)	January 30, 2017
/s/ Mark W. Sheffert Mark W. Sheffert	Chairman of the Board of Directors and Director	January 30, 2017
/s/ John R. Baudhuin John R. Baudhuin	Director	January 30, 2017
/s/ Terrence W. Bunge Terrence W. Bunge	Director	January 30, 2017
/s/ Wendy D. Lynch Wendy D. Lynch, Ph.D.	Director	January 30, 2017
/s/ Robert E. Munzenrider Robert E. Munzenrider	Director	January 30, 2017
/s/ Hendrik Struik Hendrik Struik	Director	January 30, 2017

Exhibit 21

Subsidiaries of MGC Diagnostics Corporation

Name of Subsidiary	Jurisdiction of Incorporation or Organization
Medical Graphics Corporation	Minnesota
MGC Diagnostics Belgium S.P.R.L.	Belgium
Medisoft SA	Belgium

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements on Form S-8 (File Nos. 333-210252, 333-204612, 333-181866, 333-167102, 333-159929, 333-152015, 333-145653, 333-105387 and 333-102171) of MGC Diagnostics Corporation and Subsidiaries of our report dated January 30, 2017, relating to the consolidated financial statements, which appears in this annual report on Form 10-K for the year ended October 31, 2016.

/s/ Baker Tilly Virchow Krause, LLP

Minneapolis, Minnesota
January 30, 2017

Exhibit 31.1

CERTIFICATION

I, Todd M. Austin, certify that:

1. I have reviewed this Form 10-K of MGC Diagnostics Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: January 30, 2017

/s/ Todd M. Austin
Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Wesley W. Winnekins, certify that:

1. I have reviewed this Form 10-K of MGC Diagnostics Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: January 30, 2017

/s/ Wesley W. Winnekins
Chief Financial Officer

Exhibit 32

CERTIFICATION

The undersigned certify pursuant to 18 U.S.C. § 1350, that:

(1) The accompanying Annual Report on Form 10-K for the period ended October 31, 2016 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the accompanying Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: January 30, 2017

/s/ Todd M. Austin
Chief Executive Officer

Date: January 30, 2017

/s/ Wesley W. Winnekins
Chief Financial Officer