PERKINELMER INC
Form 10-K
February 26, 2009
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UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

Form 10-K

(Mark One)

þ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 28, 2008

or

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

Commission file number 001-5075

PerkinElmer, Inc.

(Exact name of registrant as specified in its charter)

Massachusetts	**04-2052042**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
940 Winter Street, Waltham, Massachusetts	**02451**
(Address of Principal Executive Offices)	*(Zip Code)*

(Registrant s telephone number, including area code): (781) 663-6900

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

Title of Each Class	**Name of Each Exchange on Which Registered**
Common Stock, $1 Par Value	New York Stock Exchange

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

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

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or Section 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 þ 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. þ

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

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

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

The aggregate market value of the common stock, $1 par value per share, held by non-affiliates of the registrant on June 27, 2008, was $3,252,103,791, based upon the last reported sale of $27.71 per share of common stock on June 27, 2008.

As of February 20, 2009, there were outstanding 116,175,740 shares of common stock, $1 par value per share.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of PerkinElmer, Inc. s Definitive Proxy Statement for its Annual Meeting of Shareholders to be held on April 28, 2009 are incorporated by reference into Part III of this Form 10-K.

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PART I

Item 1. ***Business***

Overview

We are a leading provider of technology, services and solutions to the diagnostics, academic research, environmental monitoring and safety and security markets. We design, manufacture, market and service components, systems and products in two reporting segments:

Life and Analytical Sciences. We are a leading provider of analysis tools, including instruments, reagents, software, and consumables, to the analytical sciences, genetic screening, bio-discovery and laboratory services markets.

Optoelectronics. We provide a broad range of medical imaging, optical sensor and specialty lighting components used in medical, consumer products and other specialty end markets.

We recently announced a new alignment of our businesses effective for fiscal year 2009 that will allow us to prioritize our capabilities on two key strategic areas Human Health and Environmental Health. Our new Human Health segment concentrates on developing diagnostics, tools and applications to detect disease earlier and more accurately and to accelerate the discovery and development of critical new therapies. The Human Health segment includes our products and services that address the genetic screening and bio-discovery markets, formerly in our Life and Analytical Sciences segment, and our technology serving the medical imaging market, formerly in our Optoelectronics segment. Our new Environmental Health segment provides technologies and applications to facilitate the creation of safer products, more secure surroundings and efficient energy resources. The Environmental Health segment includes our products and services that address the analytical sciences and laboratory service and support markets, formerly in our Life and Analytical Sciences segment, and our technology designed for the sensors and lighting markets, formerly in our Optoelectronics segment.

In fiscal year 2008, we had $1,937.5 million in sales from continuing operations.

We are a Massachusetts corporation, founded in 1947. Our headquarters are in Waltham, Massachusetts, and we market our products and services in more than 150 countries. As of December 28, 2008, we employed approximately 7,900 employees in continuing operations. Our common stock is listed on the New York Stock Exchange, and we are a component of the S&P 500 Index.

We maintain a website with the address http://www.perkinelmer.com. We are not including the information contained in our website as part of, or incorporating it by reference into, this annual report on Form 10-K. We make available free of charge through our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to these reports, as soon as reasonably practicable after we electronically file these materials with, or otherwise furnish them to, the Securities and Exchange Commission.

Our Strategy

Our strategy is focused on providing innovative products, applications, and services that drive productivity improvements in targeted high growth market segments and developing value-added applications and solutions to foster continued market development and expansion. For example, we launched EcoAnalytix , a global initiative to provide product, training, support and service offerings targeting food safety, water quality and biofuels development applications. To execute on our strategy and drive higher revenue growth, we focus on broadening our product and service offerings through the acquisition of innovative technology and expenditures for research and development. Our strategy includes:

Accelerating innovation through both internal research and development and the pursuit of third-party collaborations and alliances;

Achieving significant growth in both of our focus areas through strategic acquisitions and licensing;

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Strengthening our position within key markets, by expanding our product and service offerings and maintaining superior product quality;

Utilizing our share repurchase programs to help drive shareholder value; and

Attracting, retaining and developing talented and motivated employees.

Recent Developments

As part of our strategy to grow our core businesses, we have taken the following actions:

Strategic Business Re-Alignment:

In November 2008, we announced a new alignment of our businesses effective for fiscal year 2009 that will allow us to prioritize our capabilities on two key strategic areas Human Health and Environmental Health. Our new Human Health segment concentrates on developing diagnostics, tools and applications to detect disease earlier and more accurately and to accelerate the discovery and development of critical new therapies. Our new Environmental Health segment provides technologies and applications to facilitate the creation of safer products, more secure surroundings and efficient energy resources. As part of this new alignment we placed our Photonics and Photoflash businesses from our Optoelectronics segment under strategic review and created separate plans to divest these businesses.

We reported our financial results through fiscal year 2008 using the two reporting segments of Life and Analytical Sciences and Optoelectronics. Beginning in fiscal year 2009, we will report our financial results under the Human Health and Environmental Health segments to reflect our new business alignment.

Acquisitions:

Acquisition of Opto Technology Inc. In January 2009, we acquired Opto Technology Inc. (Opto Technology), a supplier of light-emitting diode based lighting components and subsystems. We expect this acquisition to expand our portfolio of high brightness LED components by adding optical subsystems to provide energy efficient solid state lighting solutions to original equipment manufacturers. We paid the shareholders of Opto Technology approximately $21.0 million in cash plus a potential of $8.0 million in additional contingent consideration.

Acquisition of Arnel, Inc. In December 2008, we acquired Arnel, Inc. (Arnel), a provider of custom engineered solutions for gas chromatography applications in the petrochemical, food and beverage, and industrial hygiene markets. We expect this acquisition to expand our chromatography portfolio and strengthen our application-focused products to better serve the biofuels and hydrocarbon processing industries. We paid the shareholders of Arnel approximately $2.0 million in cash plus potential additional contingent consideration.

Acquisition of VaConics Lighting, Inc. In May 2008, we acquired VaConics Lighting, Inc. (VaConics), a leading provider of custom and standard ceramic Xenon arc lamps. We expect this acquisition to expand our Xenon lighting technology by increasing our offerings of lamp products that include medical endoscopes, surgical headlamps, forensic analyses, video projectors, searchlights, and infrared lighting. We paid approximately $3.9 million in cash for VaConics assets.

Acquisition of LabMetrix Technologies S.A. In March 2008, we acquired LabMetrix Technologies S.A. (LabMetrix), LabMetrix Technologies Ltd. and LabMetrix Technologies, Inc., a provider of metrology-based multi-vendor analytical instrument qualification solutions. We expect this acquisition to add technology, tools, processes and compliance expertise to our suite of OneSource® laboratory services by strengthening our support of customers in a wide range of industries including the pharmaceutical, medical device, food, toy and other consumer goods industries. We paid the shareholders of LabMetrix approximately $4.3 million in cash plus potential additional contingent consideration.

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Acquisition of Newborn Metabolic Screening Business from Pediatrix Medical Group, Inc. In February 2008, we acquired Pediatrix Screening, Inc., which constituted the newborn metabolic screening business of Pediatrix Medical Group, Inc., and is now known as PerkinElmer Genetics, Inc. (PKI Genetics). PKI Genetics provides neonatal screening and consultative services to hospitals, medical groups and various states. We expect this acquisition to expand our capabilities to supply state laboratories and other agencies with comprehensive newborn screening solutions. We initially paid Pediatrix Medical Group, Inc. approximately $66.3 million in cash. During the second quarter of fiscal year 2008, we received approximately $0.3 million, from Pediatrix Medical Group, Inc. for net working capital adjustments. During the fourth quarter of fiscal year 2008, we paid approximately $2.3 million to Pediatrix Medical Group, Inc. as additional purchase price for the election to treat the acquisition as a deemed asset sale.

We took the following actions to further strengthen our core businesses:

Restructuring:

During fiscal year 2008, we incurred $6.6 million pre-tax restructuring charge in the Life and Analytical Sciences segment related to a workforce reduction from reorganization activities and the closure of excess facilities. We also recognized a $0.4 million pre-tax restructuring reversal in the Optoelectronics segment related to a workforce reduction from reorganization activities. Our management approved a plan to shift resources into product lines that are more consistent with our growth strategy. The pre-tax restructuring activity associated with these plans has been reported as restructuring expenses as a component of operating expenses from continuing operations. We expect the impact of immediate and future cost savings from these restructuring activities on operating results and cash flows to be negligible, as we have incurred and will incur offsetting costs.

Discontinued Operations:

Photonics and Photoflash Businesses Divesture. In December 2008, as part of our new strategic business alignment into the Human Health and Environmental Health segments and our continued efforts to focus on higher growth opportunities, our management approved separate plans to sell our Photonics and Photoflash businesses within our Optoelectronics segment. Our Photonics and Photoflash products and technologies include xenon flashtubes and intense pulsed light. These products are used in a variety of applications including mobile phones and laser machine tools. We have reflected these businesses as discontinued operations for all periods presented in this annual report on Form 10-K. We are actively marketing and are currently committed to a plan to sell both of these businesses.

Certain Instrument Businesses Shut down. In December 2008, as part of our continued efforts to focus on higher growth opportunities, our management approved the shut down of certain instrument businesses within our Life and Analytical Sciences segment: Cellular Screening Fluorescence and Luminescence workstations Analytical Proteomics Instruments, and Proteomics and Genomics Instruments. We have reflected these businesses as discontinued operations for all periods presented in this annual report on Form 10-K. The Cellular Fluorescence and Luminescence workstations business included products focused on cellular imaging for kinetic and glow luminescence assays. The Analytical Proteomics Instruments business and the Proteomics and Genomics Instruments businesses included products for bioimaging, mass spectrometers for protein identification, high resolution multi-color fluorescence gel imagers, spot detection and spot excision instruments, as well as laser scanners for slide based microarray image analysis. We continue to serve the Cellular Screening, Proteomics and Genomics consumable and reagents markets. The shut down of the Cellular Screening Fluorescence and Luminescence workstations business, Analytical Proteomics Instruments business, and Proteomics and Genomics Instruments business in December 2008 resulted in a $4.8 million loss related to lease and severance costs and the reduction of fixed assets and inventory to net realizable value.

ViaCyte℠ and Cellular Therapy Technology Businesses Shut down. Following the ViaCell acquisition, our Board of Directors (the Board) approved a plan to sell the ViaCyte℠ and Cellular Therapy Technology businesses that were acquired with our acquisition of ViaCell, Inc., in November 2007. The ViaCyte℠ business focused on the development of a proprietary media intended for the cryopreservation of human unfertilized

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oocytes. The Cellular Therapy Technology business focused on the development and sale of unrestricted somatic stem cell products which are derived from umbilical cord blood. We determined that both businesses do not strategically fit with the other products offered by our Life and Analytical Sciences segment. We also determined that without investing capital into the operations of both businesses, we could not effectively compete with larger companies that focus on the market for such products. After careful consideration, we decided in the second quarter of fiscal year 2008 to shut down the ViaCyte[SM] and Cellular Therapy Technology businesses, recording a pre-tax loss of $8.0 million for severance and facility closure costs. We have classified the results and shut down of the ViaCyte[SM] and Cellular Therapy Technology businesses as discontinued operations in the accompanying financial statements. See Note 7 to our consolidated financial statements included in this annual report on Form 10-K for additional details.

As part of our strategy, we also took the following actions:

Share Repurchase Program:

On November 6, 2006, we announced that our Board authorized us to repurchase up to 10.0 million shares of common stock under a stock repurchase program (the Repurchase Program). During the third quarter of fiscal year 2008, we repurchased 1.9 million shares of common stock in the open market at an aggregate cost of $56.6 million, including commissions, under the Repurchase Program. These repurchases completed the repurchase of the 10.0 million shares in the aggregate authorized under the Repurchase Program. On October 23, 2008, we announced that our Board has authorized us to repurchase up to 10.0 million additional shares of common stock under a new stock repurchase program (the New Repurchase Program). The New Repurchase Program will expire on October 22, 2012 unless this authorization is terminated earlier by the Board, and may be suspended or discontinued at any time. During fiscal year 2008, we repurchased approximately 1.0 million shares of our common stock in the open market at an aggregate cost of $18.0 million, including commissions, under the New Repurchase Program. From December 29, 2008 through February 20, 2009, we repurchased approximately 1.0 million shares of our common stock in the open market at an aggregate cost of $14.2 million, including commissions, under the New Repurchase Program.

Life and Analytical Sciences

Our Life and Analytical Sciences segment is a leading provider of analytical sciences, genetic screening, bio-discovery and laboratory services solutions, including instruments, reagents, software, and consumables. Our instruments are used in daily applications for scientific research and clinical applications. Our research products provide the fundamental tools necessary for a variety of applications that are critical to the development of many of our customers new products and academic projects. In fiscal year 2008, our Life and Analytical Sciences segment generated sales of $1,512.6 million.

Our new Human Health segment concentrates on developing diagnostics, tools and applications to detect disease earlier and more accurately and to accelerate the discovery and development of critical new therapies and includes our products and services that address the genetic screening and bio-discovery markets, formerly in our Life and Analytical Sciences segment. Our new Environmental Health segment provides technologies and applications to facilitate the creation of safer products, more secure surroundings and efficient energy resources and includes our products and services that address the analytical sciences and laboratory service and support markets, formerly in our Life and Analytical Sciences segment.

Human Health

For genetic screening and clinical laboratories, we provide instrumentation, software, reagents and analytical tools to test for various inherited metabolic or endocrinological disorders in newborns and to assess risk during pregnancy. Our products include both screening and confirmatory diagnostic products. We sell our genetic screening solutions to public health authorities, private healthcare organizations and doctors around the world. With the addition of ViaCell, we also offer expectant families the opportunity to preserve their baby s

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umbilical cord blood at the time of birth for potential medical use by the child or a related family member for a number of disorders, including some for which we have screening programs.

For bio-discovery solutions, we offer a wide range of systems comprising instrumentation, software, consumables and reagents, supporting biochemical and cell based assays. Such products and application solutions build on our core expertise in cellular sciences, multi-label detection, time-resolved fluorescence, chemiluminescence, radioactive labeling, and the detection of proteins and nucleic acids. We sell our comprehensive solutions to pharmaceutical, biotechnology, clinical and academic research customers throughout the world.

Principal Products. Our principal products for Human Health applications include:

Liquid Scintillation Analyzers such as Tri-carb® family of liquid scintillation counters offering a range of computer-controlled bench top counters capable of detecting small amounts of alpha, beta and gamma radioactivity utilized in research, environmental or drug discovery applications.

MicroBeta and TopCount® offer low and medium throughput detection for gamma, beta and luminescence counting in microplate formats.

DELFIA® Xpress, a complete solution for prenatal screening, is a fast, continuous loading system supported by kits for both first and second trimester analyses, and clinically validated LifeCycle software.

The NeoGram MS/MS AAAC in vitro diagnostic kit is used to support detection of metabolic disorders in newborns by tandem mass spectrometry.

Ultra-Screen® is a first trimester prenatal screening protocol combining ultrasound measurement of the fluid accumulation behind the neck of the fetus (nuchal translucency) with maternal serum markers. It is designed to assess patient-specific risk for Down Syndrome, trisomy 18 and other chromosomal abnormalities.

EnVision , a multi-label reader used in a wide range of high-throughput screening applications, features two detectors enabling simultaneous dual wavelength reading, below emission reading, barcode readers, a high speed light source, and adjustment of measurement height function. The instrument is fully configurable, accepting microplates from 96 to 1,536 wells, and can be integrated into robotic systems.

The JANUS® Automated Workstation, an automation and liquid handling system consisting of a modular platform that enables one or two pipetting arms with different tip configurations as well as one-plate movement arm on a single workstation. JANUS is designed for the efficient automation of sample preparation procedures utilized in pharmaceutical, biotech, and research applications.

The UltraVIEW VoX Confocal Imaging System is a high-resolution, live cell imaging system that allows for the observation and measurement of cellular and molecular processes.

The Spectral Genomics Array Comparative Genomic Hybridization (CGH) platform provides tools for improving gene expression validation, molecular karyotyping and genome profiling.

Biochemical and cellular reagents, such as radioisotopes, radiochemicals, LANCE® and AlphaScreen® assay technologies, fluorescent labeled probes and GPCR cell lines and membranes, are used in and support a broad and flexible range of assays used for drug discovery, functional genomics, proteomics, and genotyping, as well as a range of other research areas.

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New Products. New products introduced or acquired for Human Health applications in fiscal year 2008 include:

20 new AlphaScreen® *SureFire*® assay kits used for the detection of full-length kinase activation in cell lysates.

Expansion of the AlphaLISA® No Wash assay line to 14 stand-alone reagents and 28 kits including kits for detecting key biomarkers associated with inflammation, cancer, neurodegeneration, metabolic disorders and angiogenesis.

Volocity® 5 high performance imaging software suite, a solution for 3D and 4D image acquisition, allowing data visualization, deconvolution, publication, object measurement, tracking and charting. Using Volocity, cell images can either be directly acquired or the data seamlessly imported from a diverse range of fluorescence microscopy systems.

The Columbus high content screening (HCS) data management system, a platform for archiving, managing, retrieving and protecting images and analyzed results. The Columbus software is a flexible, convenient solution for high-volume image storage and management.

Good Manufacturing Practice (GMP) Services for radiosynthesis of compounds for Absorption, Distribution, Metabolism and Excretion (ADME) research studies. Our GMP Radiosynthesis Services provide advanced expertise for the manufacturing of radiolabeled compounds to help pharmaceutical, biotechnology and contract research organizations (CROs) accelerate drug development outcomes.

The VICTOR X multi-label plate reader platform which offers customers increased flexibility while its enhanced versatility enables support of new applications beyond primary screening, including quality control and therapeutic research.

Enhanced version of market leading EnVision multi-mode detection system offering a new monochromator option enabling enhanced flexibility and optimal signal to noise detection through quad monochromator based wavelength scanning.

The JANUS Oil Diluter Workstation automates sample preparation of lubricants for wear metals analysis. The 8-tip, high-throughput workstation enables laboratories to replace manual or single-tip sample preparation methods with an automated system to accelerate testing for wear in large capital equipment.

Wizard^2 family of automated gamma counters is the next generation of gamma counters offering high throughput detection for all types of samples and compatible with any gamma application in research or clinical marketplaces.

Enhanced models of Tri-carb liquid scintillation counters providing updated software, positive identification capabilities and enhanced performance.

Environmental Health

For analytical sciences solutions, we offer analytical tools employing technologies such as molecular and atomic spectroscopy, inductively coupled plasma, gas chromatography, liquid chromatography, and thermal analysis. We launched EcoAnalytix , a global initiative to provide product, training, support and service offerings targeting food safety, water quality and biofuels development applications. Our instruments and related application solutions measure a range of substances from biomolecular matter to organic and inorganic chemicals. We sell these products

to customers in the forensics, environmental, food and beverage, consumer safety, sustainable energy, pharmaceutical, semiconductor and hydrocarbon processing/biofuels markets. These customers use our instruments in various applications to verify the identity, quality or composition of the materials they examine.

For service and support, we offer customers a range of products including service plans, preventive maintenance, qualification, training, and upgrades. OneSource®, our maintenance management platform, helps

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customers consolidate the essential maintenance and asset management needs of their laboratory(ies). Through our recent acquisitions, the services we provide have expanded to include a broad range of multi-vendor maintenance solutions.

Principal Products. Our principal products for Environmental Health applications include:

The Clarus® series of Gas Chromatographs (GC) and Gas Chromatographs/Mass Spectrometers (GC/MS) and the TurboMatrix family of sample-handling equipment are instruments used for compound identification and quantization in the environmental, forensics, food and beverage, hydrocarbon processing/biofuels, materials testing, pharmaceutical and semiconductor industries.

The Series 200 family of high performance liquid chromatography (HPLC) systems is used to identify and quantify compounds for applications in the environmental, food and beverage, and pharmaceutical industries.

Our family of inorganic analysis instrumentation, including the AAnalyst series of atomic absorption spectrometers, the Optima family of inductively coupled plasma (ICP) spectrometers and the ELAN® family of ICP mass spectrometers are instruments used in the environmental and chemical industries, among others, to determine the elemental content of a sample.

Our Raman spectroscopy instruments provide laboratories with the ability to analyze solids, liquids, powders, gels, slurries and aqueous solutions in bulk or to address variations in sample distribution with imaging. The technology applies to a wide range of sectors including pharmaceuticals, industrial, forensics and academia.

The DMA 8000 is a thermal analysis system used by scientists in the polymers, composites, pharmaceutical, and food and beverage industries for applications ranging from simple quality control to advanced research.

Spectrum high performance Fourier Transform Infrared (FT-IR) and Fourier Transform Near-Infrared (FT-NIR) spectrometers provide a wide range of capabilities for infrared analysis in pharmaceuticals, fine chemicals, polymers, plastics, and many other industries.

New Products. New products introduced or acquired for Environmental Health applications in fiscal year 2008 include:

LABWORKS Laboratory Information Management System (LIMS), a collaboration with Labtronics Inc. (Labtronics), offers laboratories more choice for connecting laboratory instruments with Labtronics providing a flexible toolkit approach enabling users to adapt their interfaces to meet changing requirements in-house, thereby reducing the need for outside assistance.

The Spectrum 400 FT-IR/FT-FIR, a research spectrometer for the characterization of materials including inorganics, novel materials and semiconductors and combines mid-infrared (IR) and far-infrared (FIR) spectroscopy in a single instrument. With automatic beamsplitter changeover, it offers flexible performance for advanced research and industrial laboratories.

Three market-specific LABWORKS LIMS packages that address increasing regulatory and compliance pressures: LABWORKS foodLIMS is designed to integrate with tracing software to support compliance with regulatory requirements, LABWORKS waterLIMS interfaces with Environmental Enforcement Data Management Systems (EEDMS) to help ensure compliance with environmental regulations and LABWORKS process LIMS interfaces with refineries Plant Information Management Systems (PIMS) to ensure optimal efficiency in data reporting.

The Spectrum 100 Optica, the only commercially available FT-IR spectrometer developed specifically for the optical filters and coatings industry. The instrument provides improved ordinate accuracy for the measurement of optical filters and high refractive index materials.

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Raman IdentiCheck portable spectrometer delivers unambiguous identification of pharmaceutical raw materials directly at goods-in or in the warehouse facility. The Raman IdentiCheck combines the high spectral performance of a laboratory-based instrument with a portable, hand-held trigger probe system.

The LAMBDA XLS, a UV/Vis spectrophotometer for Quality Assurance/Quality Control (QA/QC) and teaching laboratories; and the LAMBDA Bio, a UV/Vis spectrophotometer designed specifically for biological science laboratories; are designed as low-cost, routine platforms with a number of pre-configured standard methods and the capability to add customized methods, addressing a wide range of applications.

The Optima 7000 Series of Inductively Coupled Plasma-Optical Emission Spectrometers (ICP-OES) supports a variety of markets including environmental, geochemical, clinical, product testing and forensic. Its Universal Data Acquisition mode records all of the spectral data for each sample, enabling users to retrieve data that was not initially reported without needing to run the sample again, saving time and increasing productivity.

The Series 275 HRes Liquid Chromatography System is a dedicated liquid chromatography system, providing increased throughput with greater speed, resolution and performance to support quality assurance/quality control in the pharmaceutical, food and beverage, environmental and materials testing markets.

The Series 225 LC Autosampler, fully integrated into our Series 200 family of liquid chromatography autosamplers, supports pharmaceutical, food and beverage, environmental, materials characterization and chemical industry research and testing. It eliminates the manual steps in the critical injection phase to ensure greater reliability of operations for more accurate results.

The new LAMBDA 1050 spectrophotometer is intended to help material scientists in a diverse range of industries accelerate the development of engineered materials, including those designed to improve energy conservation or harness renewable energy sources.

Food and Consumer Safety Solutions: EcoAnalytix Melamine Analyzer, an analytical solution based on the Clarus® 600 T Gas Chromatograph/Mass Spectrometer designed to determine melamine adulteration in protein-based foods and the EcoAnalytix PlaySafe Analyzer, which verifies the amount of heavy metals in a particular consumer product.

Water Analysis Solutions: EcoAnalytix PAH Analyzer, a preconfigured system for the analysis of polycyclic aromatic hydrocarbons (PAH), organic pollutants widely distributed in the environment that can be carcinogenic; an EcoAnalytix Trace Metal Water Analyzer utilizing Inductively Coupled Plasma-Mass Spectrometry (ICP-MS) to rapidly screen for commonly regulated elements in drinking water; and, the LAMBDA XLS for determination of total nitrogen and phosphates.

Biodiesel analysis platforms: EcoAnalytix Biodiesel Glycerin & Methanol Analyzer based on the Clarus 500 Gas Chromatograph for the analysis of glycerin and residual alcohol in biodiesel; the EcoAnalytix Biodiesel Trace Metals Analyzer based on the Optima 7000 ICP-Optical Emission Spectroscopy for testing Group I and Group II metals and phosphorus; the EcoAnalytix Biodiesel FAME Analyzer (ASTM only) based on the Spectrum 100 FT-IR System for analyzing the properties of biodiesel fuel that are determined by structure of its fatty acid methyl esters; and LABWORKS Green, a pre-configured software application for the biodiesel industry.

Through the acquisition of Arnel, we continue our ability to provide standard and custom petroleum tailored solutions based upon our gas chromatography platform. These analyzers include the widest range of refinery/light hydrocarbon gas analyzers (RGA) and natural gas analyzers (NGA) in the industry.

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Brand Names

Our Life and Analytical Sciences segment offers additional products under various brand names, including AlphaLISA®, AlphaScreen®, Wallac®, Packard®, NEN®, OneSource®, AutoDELFIA®, HyperDSC®, LAMBDA , LABWORKS , EcoAnalytix , Evolution , Chromera , MultiPROBE®, FlashBlue , ScanArray , Victor , Opera and ViaCord®

Optoelectronics

Our Optoelectronics segment provides a broad range of medical imaging, optical sensor and specialty lighting components used in medical, consumer products, and other specialty end markets. For fiscal year 2008, our Optoelectronics segment generated sales of $424.9 million.

Our new Human Health segment concentrates on developing diagnostics, tools and applications to detect disease earlier and more accurately and to accelerate the discovery and development of critical new therapies and includes our technology serving the medical imaging market formerly in our Optoelectronics segment. Our Environmental Health segment provides technologies and applications to facilitate the creation of safer products, more secure surroundings and efficient energy resources and includes our technology designed for the sensors and lighting markets formerly in our Optoelectronics segment.

Human Health

We are a leading supplier of amorphous silicon flat panel detectors, a technology for diagnostic medical imaging and radiation therapy. Amorphous silicon flat panel detectors replace film and produce improved image resolution and diagnostic capability for use in radiography, angiography, cardiac and cancer treatment. The amorphous silicon technology is important to medical imaging applications as well as to industrial nondestructive testing for defect recognition within automated manufacturing lines.

Principal Products. Our principal products for Human Health applications include:

Amorphous silicon flat panel detectors, containing an enabling technology for digital x-ray imaging that replaces film and produces improved image resolution and diagnostic capability in applications such as radiography, cardiology, angiography and cancer treatments.

New Products. New products introduced for Human Health applications in fiscal year 2008 include:

New 8-inch and 16-inch amorphous silicon flat panel detectors in its XRD N ES detector series, offering twice the speed of previous designs, with output of up to 30 frames per second (fps) and the ability to provide real-time images. The detectors are radiation-hardened and designed to withstand demanding, high energy test environments for industrial nondestructive testing applications including metal casting inspection, composite materials inspection, PCB testing, pipeline inspection, and various types of

in-line manufacturing inspections.

Environmental Health

Our specialty lighting technologies include ceramic xenon light sources and LEDs. These products are used in a variety of applications including medical endoscopy equipment, blood glucose equipment, operating room lighting and light sources for analytical instruments.

We have significant expertise in optical sensor technologies, with products used in a variety of applications. Some of the applications in which our optical sensors are used include sample detection in life sciences instruments, x-ray luggage screening, safety and security applications such as smoke detectors, HVAC controls, document handling/sorting, smart weaponry and non-contact temperature measurements for applications such as ear thermometers and consumer appliances.

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Principal Products. Our principal products for Environmental Health applications include:

Cermax® xenon short arc lamps and fiber optic light sources used in diagnostic and surgical endoscopes, surgical headlamps, microscopes and phototherapy systems.

Cermax® xenon lamps utilized in front projection applications for home theater, conference rooms and auditoriums which are able to deliver the required brightness while minimizing sacrifices in color performance.

LED light sources coupled with photodiodes for signal detection, used in sensor modules for hand-held blood glucose meters. The sensing module works as the optical detection unit of the system and an LED-based reflective sensor is incorporated into the blood glucose meter to read out tracking information on the consumables.

Thermopile temperature sensors used in digital ear thermometers.

Avalanche photodiode detectors for molecular imaging instrumentation, including pre-clinical Positron Emission Tomography (PET) scanners used by the medical research community to image molecular biology activity in small animals.

Optical sensors used in a variety of safety and security applications, including x-ray luggage screening and smoke alarms, laser printers, copiers and other consumer applications, HVAC systems for monitoring of harmful gases in households, various automotive applications, and smart weaponry.

Charge-coupled device cameras, used to detect defects in manufacturing processes, pilot vision systems and document sorting.

A range of products used in military and aerospace applications including lighting, power supplies and other specialty components.

A wide range of optical detectors and light sources used in analytical instruments, drug discovery tools and clinical diagnostic systems. The detectors include charge coupled devices, avalanche photodiodes, photodiode arrays, channel photo multipliers, and our unique single photon counting module. The light sources include our Cermax® xenon short arc lamps described above. We also produce ultraviolet-visible range spectrometer sub-systems based on the above components.

New Products. New products introduced for Environmental Health applications in fiscal year 2008 include:

Next-generation Cermax® xenon lamps and modules for applications including medical endoscopy, surgical headlamp illumination, biofluorescence, and dental curing. The new Cermax VQ models deliver improved reliability, longer lamp lifetime, easy lamp replacement, improved heat sink design, and quiet operation.

White LED product offerings in the ACULED® family of high-power LED solutions. The ACULED® Very High Lumen (VHL) product line now includes a full-line of all-white LEDs and multi-color/white LEDs and provides superior color mixing, four separately addressable chips, adjustable color temperatures and low thermal resistance. Custom lighting combinations that include white chips are available under the ACULED® DYO product line, providing customers with the capability to design your own custom four-chip LED configuration to suit specific lighting application needs.

New Thermopile Sensors in surface mount device (SMD) housings for applications involving remote temperature sensing including ear thermometers and other consumer/office applications including printers and photocopiers. The new thermopile product lines feature improved thermal properties as well as new thermopile chip and packaging options.

New Family of Avalanche Photodiodes (APDs) in plastic packaging, including lower-cost devices based on multiple size and wavelength-adapted EPI APD chips with varied packaging options. The new APDs, an alternative to metal-packaged APD devices, are suited to commercial and recreational range-finding markets, high volume optical distance measurement, and security and presence detection applications.

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New short wavelength-enhanced silicon APDs for nuclear medicine, PET imaging applications and high-energy physics.

TPS 73x Thermopile Sensor Family for gas sensing applications, delivering enhanced performance based on their high sensitivity and low noise.

Brand Names

Our Optoelectronics business offers its products under various brand names, including Cermax®, VQ , Heimann , Reticon®, SmartBlue , MultiBlue , DigiPyro®, ACULED®, Trim Xe , AesthetiPak , VIGI-Lux , Power Systems, and Amorphous Silicon.

Marketing

All of our businesses market their products and services directly through their own specialized sales forces. As of December 28, 2008, we employed approximately 2,600 sales and service representatives operating in approximately 35 countries, and marketing products and services in more than 150 countries. In geographic regions where we do not have a sales and service presence, we utilize distributors to sell our products.

Raw Materials and Supplies

Each of our businesses uses a wide variety of raw materials and supplies that are generally available from alternate sources of supply and in adequate quantities from domestic and foreign sources. We generally have multi-year contracts, with no minimum purchase requirements, with certain of our suppliers. For certain critical raw materials and supplies required for the production of some of our principal products, we have qualified only a limited or a single source of supply. We periodically purchase quantities of some of these critical raw materials in excess of current requirements, in anticipation of future manufacturing needs. With sufficient lead times, we believe we would be able to qualify alternative suppliers for each of these raw materials. See further description in the applicable risk factor under Item 1A. Risk Factors.

Intellectual Property

We own numerous United States and foreign patents and have patent applications pending in the United States and abroad. We also license intellectual property rights to and from third parties, some of which bear royalties and are terminable in specified circumstances. In addition to our patent portfolio, we possess a wide array of unpatented proprietary technology and know-how. We also own numerous United States and foreign trademarks and trade names for a variety of our product names, and have applications for the registration of trademarks and trade names pending in the United States and abroad. We believe that patents and other proprietary rights are important to the development of both of our reporting segments, but we also rely upon trade secrets, know-how, continuing technological innovations and licensing opportunities to develop and maintain the competitive position of both of our reporting segments. We do not believe that the loss of any one patent or other proprietary right would have a material adverse effect on our overall business or on any of our reporting segments.

In some cases, we may participate in litigation or other proceedings to defend against or assert claims of infringement, to enforce our patents or our licensors patents, to protect our trade secrets, know-how or other intellectual property rights, or to determine the scope and validity of our or third parties intellectual property rights. Litigation of this type could result in substantial cost to us and diversion of our resources. An adverse outcome in any litigation or proceeding could subject us to significant liabilities or expenses, require us to cease using disputed intellectual property or cease the sale of a product, or require us to license the disputed intellectual property from third parties. We are currently involved in several lawsuits involving claims of violation of intellectual property rights. See Item 3. Legal Proceedings for a discussion of these matters.

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Backlog

We believe that backlog is not a meaningful indicator of future business prospects for either of our business segments due to the short lead time required on a majority of our sales. Therefore, we believe that backlog information is not material to an understanding of our business.

Competition

Due to the wide range of our products and services, we face many different types of competition and competitors. This affects our ability to sell our products and services and the prices at which these products and services are sold. Our competitors range from large foreign and domestic organizations, which produce a comprehensive array of goods and services and that may have greater financial and other resources, to small firms producing a limited number of goods or services for specialized market segments.

In our Life and Analytical Sciences segment, we compete on the basis of service level, price, technological innovation, product differentiation, product availability, quality and reliability. Competitors range from multinational organizations with a wide range of products to specialized firms that in some cases have well-established market niches. We expect the proportion of large competitors in this reporting segment to increase through the continued consolidation of competitors.

We do not believe any single competitor competes directly with our Optoelectronics segment across its full product range. However, we do compete with specialized manufacturing companies in the manufacturing and sale of specialty flashtubes for industrial applications and ultra specialty lighting sources, photo detectors and photodiodes, and switched power supplies. Competition is based on price, technological innovation, operational efficiency, and product reliability and quality.

We believe we compete effectively in each of the areas in which our businesses experience competition.

Research and Development

Research and development expenditures were approximately $108.1 million during fiscal year 2008, approximately $105.5 million during fiscal year 2007, and approximately $93.4 million during fiscal year 2006. The fiscal year 2007 amount included an in-process research and development (IPR&D) charge of $1.5 million related to the acquisitions of Evotec Technologies GmbH and Euroscreen Products, S.A. in January 2007.

We directed our research and development efforts in fiscal years 2008, 2007 and 2006 primarily toward genetic screening, bio-discovery, and analytical sciences markets within our Life and Analytical Sciences segment, and medical imaging and photonics markets within our Optoelectronics segment, in order to help accelerate our growth initiatives. We expect to continue our strong investments in research and development to drive growth during fiscal year 2009, and to continue to emphasize the genetic screening, bio-discovery, and medical imaging markets within our Human Health segment, and the analytical sciences market within our Environmental Health segment.

Environmental Matters

Our operations are subject to various foreign, federal, state and local environmental and safety laws and regulations. These requirements include those governing emissions and discharges of hazardous substances, the remediation of contaminated soil and groundwater, the regulation of radioactive materials, and the health and safety of our employees.

We may have liability under the Comprehensive Environmental Response Compensation and Liability Act and comparable state statutes that impose liability for investigation and remediation of contamination without regard to fault, in connection with materials that we or our former businesses sent to various third-party sites. We have incurred, and expect to incur, costs pursuant to these statutes.

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We are conducting a number of environmental investigations and remedial actions at our current and former locations and, along with other companies, have been named a potentially responsible party (PRP) for certain waste disposal sites. We accrue for environmental issues in the accounting period that our responsibility is established and when the cost can be reasonably estimated. We have accrued $4.0 million as of December 28, 2008, which represents our management s estimate of the total cost of ultimate disposition of known environmental matters. This amount is not discounted and does not reflect the recovery of any amounts through insurance or indemnification arrangements. These cost estimates are subject to a number of variables, including the stage of the environmental investigations, the magnitude of the possible contamination, the nature of the potential remedies, possible joint and several liability, the time period over which remediation may occur, and the possible effects of changing laws and regulations. For sites where we have been named a PRP, our management does not currently anticipate any additional liability to result from the inability of other significant named parties to contribute. We expect that the majority of such accrued amounts could be paid out over a period of up to ten years. As assessment and remediation activities progress at each individual site, these liabilities are reviewed and adjusted to reflect additional information as it becomes available. There have been no environmental problems to date that have had or are expected to have a material adverse effect on our financial position, results of operations, or cash flows. While it is possible that a loss exceeding the amounts recorded in the consolidated financial statements may be incurred, the potential exposure is not expected to be materially different from those amounts recorded.

In addition, we accrued $9.7 million during fiscal year 2007 for a fire that occurred within our Life and Analytical Sciences facility in Boston, Massachusetts in March 2005, representing our management s estimate of the total cost for decommissioning the building, including environmental matters. We paid $1.6 million during fiscal year 2008 and $3.9 million during fiscal year 2007 towards decommissioning the building. We anticipate that the remaining payments of $4.2 million will be completed by the third quarter of fiscal year 2009.

We may become subject to new or unforeseen environmental costs or liabilities. Compliance with new or more stringent laws or regulations, stricter interpretations of existing laws, or the discovery of new contamination could cause us to incur additional costs.

Employees

As of December 28, 2008, we employed approximately 7,900 employees in continuing operations. Several of our subsidiaries are parties to contracts with labor unions and workers councils. As of December 28, 2008, we employed an aggregate of approximately 1,000 union and workers council employees. We consider our relations with employees to be satisfactory.

Financial Information About Reporting Segments

The assets and expenses for our corporate headquarters, such as legal, tax, accounting and finance, human resources, property and insurance management, information technology, treasury and other management and compliance costs, have been included as Corporate below. We have a process to allocate and recharge expenses to the reportable segments when such costs are administered or paid by the corporate headquarters based on the extent to which the segment benefited from the expenses. These amounts have been calculated in a consistent manner and are included in our calculations of segment results to internally plan and assess the performance of each segment for all purposes, including determining the compensation of the business leaders for each of our operating segments.

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The table below sets forth sales and operating income (loss) by reporting segment for the 2008, 2007 and 2006 fiscal years:

	2008	2007	2006
		(In thousands)	
Life & Analytical Sciences			
Sales	$ 1,512,556	$ 1,315,591	$ 1,129,182
Operating income from continuing operations	138,627	129,558	112,655
Optoelectronics			
Sales	424,909	386,783	348,503
Operating income from continuing operations	91,164	71,381	66,063
Corporate			
Operating loss from continuing operations	(36,821)	(37,086)	(31,991)
Continuing Operations			
Sales	$ 1,937,465	$ 1,702,374	$ 1,477,685
Operating income from continuing operations	192,970	163,853	146,727
Interest and other expense, net (see Note 5)	45,609	16,877	2,666
Income from continuing operations before income taxes	$ 147,361	$ 146,976	$ 144,061

Discontinued operations have not been included in the preceding table.

Additional information relating to our reporting segments for the 2008, 2007 and 2006 fiscal years is as follows:

	Depreciation and Amortization Expense			Capital Expenditures		
	2008	2007	2006	2008	2007	2006
			(In thousands)			
Life and Analytical Sciences	$ 72,534	$ 61,689	$ 50,575	$ 25,019	$ 17,575	$ 25,973
Optoelectronics	14,223	13,246	15,097	15,105	23,834	11,122
Corporate	1,550	1,576	2,049	3,201	3,105	6,497
Continuing operations	$ 88,307	$ 76,511	$ 67,721	$ 43,325	$ 44,514	$ 43,592
Discontinued operations	$ 5,450	$ 1,568	$ 1,795	$ 2,079	$ 2,466	$ 881

	Total Assets	
	December 28, 2008	December 30, 2007
	(In thousands)	
Life and Analytical Sciences	$ 2,608,731	$ 2,589,439
Optoelectronics	281,034	269,485
Corporate	21,433	46,409
Net current and long-term assets of discontinued operations	20,569	44,004
Total assets	$ 2,931,767	$ 2,949,337

Financial Information About Geographic Areas

Both of our reporting segments conduct business in, and derive substantial revenue from, various countries outside the United States. During fiscal year 2008, we had $1,185.1 million in sales from our international operations, representing approximately 60% of our total sales. During fiscal year 2008, we derived

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approximately 80% of our international sales from our Life and Analytical Sciences segment, and approximately 20% of our international sales from our Optoelectronics segment. We anticipate that sales from international operations will continue to represent a substantial portion of our total sales in the future.

We are exposed to the risks associated with international operations, including exchange rate fluctuations, regional and country-specific political and economic conditions, foreign receivables collection concerns, trade protection measures and import or export licensing requirements, tax risks, staffing and labor law concerns, intellectual property protection risks, and differing regulatory requirements. Additional geographic information is discussed in Note 23 to our consolidated financial statements included in this annual report on Form 10-K.

Item 1A. ***Risk Factors***

The following important factors affect our business and operations generally or affect multiple segments of our business and operations:

If the markets into which we sell our products decline, or do not grow as anticipated due to a decline in general economic conditions or uncertainties surrounding the approval of government or industrial funding proposals, we may see an adverse effect on the results of our business operations.

Our customers include pharmaceutical and biotechnology companies, laboratories, academic and research institutions, public health authorities, private healthcare organizations, doctors and government agencies. Our quarterly sales and results of operations are highly dependent on the volume and timing of orders received during the quarter. In addition, our revenues and earnings forecasts for future quarters are often based on the expected trends in our markets. However, the markets we serve do not always experience the trends that we may expect. Negative fluctuations in our customers markets, the inability of our customers to secure credit or funding, general economic conditions or cuts in government funding would likely result in a reduction in demand for our products and services. In addition, government funding is subject to economic conditions and the political process, which is inherently fluid and unpredictable. Our revenues may be adversely affected if our customers delay or reduce purchases as a result of uncertainties surrounding the approval of government or industrial funding proposals. Such declines could harm our consolidated financial position, results of operations, cash flows and trading price of our common stock, and could limit our ability to sustain profitability.

Our growth is subject to global economic, political and other risks.

We have operations in many parts of the world. The health of the global economy has a significant impact on our business. For example, the current tightening of credit in the financial markets may make it more difficult for customers to obtain financing for their operations, resulting in a material decrease in the orders we receive. Our business is also affected by local economic environments, including inflation, recession, financial liquidity and currency volatility or devaluation. Political changes, some of which may be disruptive, could interfere with our supply chain, our customers and all of our activities in a particular location. In addition, our global manufacturing facilities face risks to their production capacity that may relate to natural disasters, labor relations or regulatory compliance. While some of these risks can be hedged using financial instruments and some are insurable, such attempts to mitigate these risks are costly and not always successful. In addition, our ability to engage in such mitigation has decreased or become even more costly as a result of recent market developments.

If we do not introduce new products in a timely manner, we may lose market share and be unable to achieve revenue growth targets.

We sell many of our products in industries characterized by rapid technological change, frequent new product and service introductions, and evolving customer needs and industry standards. Many of the businesses competing with us in these industries have significant financial and other resources to invest in new technologies, substantial intellectual property portfolios, substantial experience in new product development, regulatory

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expertise, manufacturing capabilities, and the distribution channels to deliver products to customers. Our products could become technologically obsolete over time, or we may invest in technology that does not lead to revenue growth, or continue to sell products for which the demand from our customers is declining, in which case we may lose market share or not achieve our revenue growth targets. The success of our new product offerings will depend upon several factors, including our ability to:

- accurately anticipate customer needs,
- innovate and develop new technologies and applications,
- successfully commercialize new technologies in a timely manner,
- price our products competitively, and manufacture and deliver our products in sufficient volumes and on time, and
- differentiate our offerings from our competitors offerings.

Many of our products are used by our customers to develop, test and manufacture their products. We must anticipate industry trends and consistently develop new products to meet our customers expectations. In developing new products, we may be required to make significant investments before we can determine the commercial viability of the new product. If we fail to accurately foresee our customers needs and future activities, we may invest heavily in research and development of products that do not lead to significant sales. We may also suffer a loss in market share and potential sales revenue if we are unable to commercialize our technology in a timely and efficient manner.

In addition, some of our licensed technology is subject to contractual restrictions, which may limit our ability to develop or commercialize products for some applications.

We may not be able to successfully execute acquisitions or license technologies, integrate acquired businesses or licensed technologies into our existing businesses, or make acquired businesses or licensed technologies profitable.

We have in the past supplemented, and may in the future supplement, our internal growth by acquiring businesses and licensing technologies that complement or augment our existing product lines, such as ViaCell, Inc., acquired in November 2007, the Newborn Metabolic Screening Business from Pediatrix Medical Group, Inc., acquired in February 2008, LabMetrix Technologies S.A., acquired in March 2008, VaConics Lighting, Inc., acquired in May 2008, and Arnel, Inc., acquired in December 2008. However, we may be unable to identify or complete promising acquisitions or license transactions for many reasons, including:

- competition among buyers and licensees,
- the high valuations of businesses and technologies,

the need for regulatory and other approval, and

our inability to raise capital to fund these acquisitions.

Some of the businesses we may seek to acquire may be unprofitable or marginally profitable. Accordingly, the earnings or losses of acquired businesses may dilute our earnings. For these acquired businesses to achieve acceptable levels of profitability, we would have to improve their management, operations, products and market penetration. We may not be successful in this regard and may encounter other difficulties in integrating acquired businesses into our existing operations, such as incompatible management, information or other systems, cultural differences or difficulties in predicting financial results. As a result, our financial results may differ from our forecasts or the expectations of the investment community in a given quarter or over the long term.

To finance our acquisitions, we may have to raise additional funds, either through public or private financings. We may be unable to obtain such funds or may be able to do so only on terms unacceptable to us. We may also incur expenses in evaluating possible acquisitions that we ultimately do not acquire, which expenses then may adversely impact our profitability.

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We may not be successful in adequately protecting our intellectual property.

Patent and trade secret protection is important to us because developing new products, processes and technologies gives us a competitive advantage, although it is time-consuming and expensive. We own many United States and foreign patents and intend to apply for additional patents. Patent applications we file, however, may not result in issued patents or, if they do, the claims allowed in the patents may be narrower than what is needed to protect fully our products, processes and technologies. Similarly, applications to register our trademarks may not be granted in all countries in which they are filed. For our intellectual property that is protected by keeping it secret, such as trade secrets and know-how, we may not use adequate measures to protect this intellectual property.

Third parties may also challenge the validity of our issued patents, may circumvent or design around our patents and patent applications, or may claim that our products, processes or technologies infringe their patents. In addition, third parties may assert that our product names infringe their trademarks. We may incur significant expense in legal proceedings to protect our intellectual property against infringement by third parties or to defend against claims of infringement by third parties. Claims by third parties in pending or future lawsuits could result in awards of substantial damages against us or court orders that could effectively prevent us from manufacturing, using, importing or selling our products in the United States or other countries.

If we are unable to renew our licenses or otherwise lose our licensed rights, we may have to stop selling products or we may lose competitive advantage.

We may not be able to renew our existing licenses, or licenses we may obtain in the future, on terms acceptable to us, or at all. If we lose the rights to a patented or other proprietary technology, we may need to stop selling products incorporating that technology and possibly other products, redesign our products or lose a competitive advantage. Potential competitors could in-license technologies that we fail to license and potentially erode our market share.

Our licenses typically subject us to various economic and commercialization obligations. If we fail to comply with these obligations, we could lose important rights under a license, such as the right to exclusivity in a market. In some cases, we could lose all rights under the license. In addition, rights granted under the license could be lost for reasons out of our control. For example, the licensor could lose patent protection for a number of reasons, including invalidity of the licensed patent, or a third-party could obtain a patent that curtails our freedom to operate under one or more licenses.

If we do not compete effectively, our business will be harmed.

We encounter aggressive competition from numerous competitors in many areas of our business. We may not be able to compete effectively with all of these competitors. To remain competitive, we must develop new products and periodically enhance our existing products. We anticipate that we may also have to adjust the prices of many of our products to stay competitive. In addition, new competitors, technologies or market trends may emerge to threaten or reduce the value of entire product lines.

Our quarterly operating results could be subject to significant fluctuation, and we may not be able to adjust our operations to effectively address changes we do not anticipate, which could increase the volatility of our stock price and potentially cause losses to our shareholders.

Given the nature of the markets in which we participate, we cannot reliably predict future sales and profitability. Changes in competitive, market and economic conditions may require us to adjust our operations, and we may not be able to make those adjustments or make them quickly enough to adapt to changing conditions. A high proportion of our costs are fixed, due in part to our research and development and manufacturing costs. Thus, small declines in sales could disproportionately affect our operating results in a quarter. Factors that may affect our quarterly operating results include:

- demand for and market acceptance of our products,

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competitive pressures resulting in lower selling prices,

adverse changes in the level of economic activity in regions in which we do business,

decline in general economic conditions or government funding,

adverse income tax audit settlements,

differing tax laws and changes in those laws, or changes in the countries in which we are subject to tax,

adverse changes in industries, such as pharmaceutical and biomedical,

changes in the portions of our sales represented by our various products and customers,

delays or problems in the introduction of new products,

our competitors announcement or introduction of new products, services or technological innovations,

increased costs of raw materials, energy or supplies, and

changes in the volume or timing of product orders.

A significant disruption in third-party package delivery and import/export services, or significant increases in prices for those services, could interfere with our ability to ship products, increase our costs and lower our profitability.

We ship a significant portion of our products to our customers through independent package delivery and import/export companies, including UPS and Federal Express in the United States, TNT, UPS and DHL in Europe and UPS in Asia. We also ship our products through other carriers, including national trucking firms, overnight carrier services and the U.S. Postal Service. If one or more of the package delivery or import/export providers experiences a significant disruption in services or institutes a significant price increase, the delivery of our products could be prevented or delayed. Such events could cause us to incur increased shipping costs that could not be passed on to our customers, negatively impacting our profitability and our relationships with certain of our customers.

Disruptions in the supply of raw materials, certain key components, and supplies from our limited or single source suppliers could have an adverse effect on the results of our business operations, and could damage our relationships with customers.

The production of our products requires a wide variety of raw materials, key components and supplies that are generally available from alternate sources of supply. However, certain critical raw materials, key components and supplies required for the production of some of our principal

products are available from limited or single sources of supply. We generally have multi-year contracts with no minimum purchase requirements with these suppliers, but those contracts may not fully protect us from a failure by certain suppliers to supply critical materials or from the delays inherent in being required to change suppliers and, in some cases, validate new raw materials. Such raw materials, key components and supplies could usually be obtained from alternative sources with the potential for an increase in price, decline in quality or delay in delivery. A prolonged inability to obtain certain raw materials, key components or supplies is possible and could have an adverse effect on our business operations, and could damage our relationships with customers.

The manufacture and sale of products may expose us to product liability claims for which we could have substantial liability.

We face an inherent business risk of exposure to product liability claims if our products or product candidates are alleged or found to have caused injury, damage or loss. We may in the future be unable to obtain insurance with adequate levels of coverage for potential liability on acceptable terms or claims of this nature may be excluded from coverage under the terms of any insurance policy that we can obtain. If we are unable to obtain such insurance or the amounts of any claims successfully brought against us substantially exceed our coverage, then our business could be adversely impacted.

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If we fail to maintain satisfactory compliance with the regulations of the United States Food and Drug Administration and other governmental agencies, we may be forced to recall products and cease their manufacture and distribution, and we could be subject to civil or criminal penalties.

Some of the products produced by our Life and Analytical Sciences segment are subject to regulation by the United States Food and Drug Administration and similar agencies internationally. These regulations govern a wide variety of product activities, from design and development to labeling, manufacturing, promotion, sales, resales and distribution. If we fail to comply with those regulations or those of similar international agencies, we may have to recall products, cease their manufacture and distribution, and may be subject to fines or criminal prosecution. Other aspects of our operations are subject to regulation by different government agencies in the United States and other countries. If we fail to comply with those regulations, we could be subject to fines, penalties, criminal prosecution or other sanctions.

Changes in governmental regulations may reduce demand for our products or increase our expenses.

We compete in markets in which we or our customers must comply with federal, state, local and foreign regulations, such as environmental, health and safety, and food and drug regulations. We develop, configure and market our products to meet customer needs created by these regulations. Any significant change in these regulations could reduce demand for our products or increase our costs of producing these products.

The healthcare industry is highly regulated and if we fail to comply with its extensive system of laws and regulations, we could suffer fines and penalties or be required to make significant changes to our operations which could have a significant adverse effect on the results of our business operations.

The healthcare industry, including the genetic screening market, is subject to extensive and frequently changing international and United States federal, state and local laws and regulations. In addition, legislative provisions relating to healthcare fraud and abuse, patient privacy violations and misconduct involving government insurance programs provide federal enforcement personnel with substantial powers and remedies to pursue suspected violations. We believe that our business will continue to be subject to increasing regulation as the federal government continues to strengthen its position on healthcare matters, the scope and effect of which we cannot predict. If we fail to comply with applicable laws and regulations, we could suffer civil and criminal damages, fines and penalties, exclusion from participation in governmental healthcare programs, and the loss of various licenses, certificates and authorizations necessary to operate our business, as well as incur liabilities from third-party claims, all of which could have a significant adverse effect on our business.

Economic, political and other risks associated with foreign operations could adversely affect our international sales and profitability.

Because we sell our products worldwide, our businesses are subject to risks associated with doing business internationally. Our sales originating outside the United States represented the majority of our total sales in the fiscal year ended December 28, 2008. We anticipate that sales from international operations will continue to represent a substantial portion of our total sales. In addition, many of our manufacturing facilities, employees and suppliers are located outside the United States. Accordingly, our future results of operations could be harmed by a variety of factors, including:

- changes in foreign currency exchange rates,

changes in a country s or region s political or economic conditions, particularly in developing or emerging markets,

longer payment cycles of foreign customers and timing of collections in foreign jurisdictions,

trade protection measures and import or export licensing requirements,

differing tax laws and changes in those laws, or changes in the countries in which we are subject to tax,

adverse income tax audit settlements or loss of previously negotiated tax incentives,

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differing business practices associated with foreign operations,

difficulty in staffing and managing widespread operations,

differing labor laws and changes in those laws,

differing protection of intellectual property and changes in that protection, and

differing regulatory requirements and changes in those requirements.

If we do not retain our key personnel, our ability to execute our business strategy will be limited.

Our success depends to a significant extent upon the continued service of our executive officers and key management and technical personnel, particularly our experienced engineers, and on our ability to continue to attract, retain, and motivate qualified personnel. The competition for these employees is intense. The loss of the services of one or more of our key personnel could have a material adverse effect on our operating results. In addition, there could be a material adverse effect on us should the turnover rates for engineers and other key personnel increase significantly or if we are unable to continue to attract qualified personnel. We do not maintain any key person life insurance policies on any of our officers or employees.

Our success also depends on our ability to execute leadership succession plans. The inability to successfully transition key management roles could have a material adverse effect on our operating results.

If we experience a significant disruption in our information technology systems or if we fail to implement new systems and software successfully, our business could be adversely affected.

We rely on several centralized information systems throughout our company to keep financial records, process orders, manage inventory, process shipments to customers and operate other critical functions. If we were to experience a prolonged system disruption in the information technology systems that involve our interactions with customers and suppliers, it could result in the loss of sales and customers and significant incremental costs, which could adversely affect our business.

Restrictions in our credit facility and outstanding debt instruments may limit our activities.

Our amended senior unsecured revolving credit facility and our 6% senior unsecured notes contain, and future debt instruments to which we may become subject may contain, restrictive covenants that limit our ability to engage in activities that could otherwise benefit our company. These debt instruments include restrictions on our ability and the ability of our subsidiaries to:

pay dividends on, redeem or repurchase our capital stock,

sell assets,

incur obligations that restrict their ability to make dividend or other payments to us,

guarantee or secure indebtedness,

enter into transactions with affiliates, and

consolidate, merge or transfer all or substantially all of our assets and the assets of our subsidiaries on a consolidated basis.

We are also required to meet specified financial ratios under the terms of our debt instruments. Our ability to comply with these financial restrictions and covenants is dependent on our future performance, which is subject to prevailing economic conditions and other factors, including factors that are beyond our control such as foreign exchange rates, interest rates, changes in technology and changes in the level of competition.

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Our failure to comply with any of these restrictions in our amended senior unsecured revolving credit facility and our 6% senior unsecured notes may result in an event of default under either or both of these debt instruments, which could permit acceleration of the debt under either or both debt instruments, and require us to prepay that debt before its scheduled due date.

Our results of operations will be adversely affected if we fail to realize the full value of our intangible assets.

As of December 28, 2008, our total assets included $1.8 billion of net intangible assets. Net intangible assets consist principally of goodwill associated with acquisitions and costs associated with securing patent rights, trademark rights and technology licenses, net of accumulated amortization. We test certain of these items specifically all of those that are considered non-amortizing at least on an annual basis for potential impairment by comparing the carrying value to the fair market value of the reporting unit to which they are assigned. All of our amortizing intangible assets are evaluated for impairment should discrete events occur that call into question the recoverability of the intangible assets.

Adverse changes in our business or the failure to grow our Life and Analytical Sciences segment may result in impairment of our intangible assets, which could adversely affect our results of operations.

Our share price will fluctuate.

Over the last several quarters, stock markets in general and our common stock in particular have experienced significant price and volume volatility. Both the market price and the daily trading volume of our common stock may continue to be subject to significant fluctuations due not only to general stock market conditions but also to a change in sentiment in the market regarding our operations and business prospects. In addition to the risk factors discussed above, the price and volume volatility of our common stock may be affected by:

- operating results that vary from the expectations of securities analysts and investors;
- the financial performance of the major end markets that we target;
- the operating and securities price performance of companies that investors consider to be comparable to us;
- announcements of strategic developments, acquisitions and other material events by us or our competitors; and
- changes in global financial markets and global economies and general market conditions, such as interest or foreign exchange rates, commodity and equity prices and the value of financial assets.

Dividends on our common stock could be reduced or eliminated in the future.

On January 28, 2009, we announced that our Board had declared a quarterly dividend of $0.07 per share for the first quarter of fiscal year 2009. In the future, our Board may determine to reduce or eliminate our common stock dividend in order to fund investments for growth, repurchase shares or conserve capital resources.

Item 1B. ***Unresolved Staff Comments***

Not applicable.

Item 2. ***Properties***

As of December 28, 2008, our continuing operations occupied approximately 2,643,000 square feet in over 110 locations. We own approximately 615,000 square feet of this space, and lease the balance. We conduct our operations in manufacturing and assembly plants, research laboratories, administrative offices and other facilities located in 11 states and 34 foreign countries.

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Facilities outside of the United States account for approximately 1,312,000 square feet of our owned and leased property, or approximately 50% of our total occupied space.

Our real property leases are both short-term and long-term. We believe that our properties are well-maintained and are adequate for our present requirements.

The following table indicates, as of December 28, 2008, the approximate square footage of real property owned and leased attributable to the continuing operations of both of our reporting segments:

	Owned	Leased	Total
		(In square feet)	
Life and Analytical Sciences	280,000	1,416,200	1,696,200
Optoelectronics	335,000	584,000	919,000
Corporate offices		27,800	27,800
Continuing operations	615,000	2,028,000	2,643,000

Item 3. ***Legal Proceedings***

Enzo Biochem, Inc. and Enzo Life Sciences, Inc. (collectively, Enzo) filed a complaint dated October 23, 2002 in the United States District Court for the Southern District of New York, Civil Action No. 02-8448, against Amersham plc, Amersham BioSciences, PerkinElmer, Inc., PerkinElmer Life Sciences, Inc., Sigma-Aldrich Corporation, Sigma Chemical Company, Inc., Molecular Probes, Inc., and Orchid BioSciences, Inc. The complaint alleges that we have breached our distributorship and settlement agreements with Enzo, infringed Enzo s patents, engaged in unfair competition and fraud, and committed torts against Enzo by, among other things, engaging in commercial development and exploitation of Enzo s patented products and technology, separately and together with the other defendants. Enzo seeks injunctive and monetary relief. In 2003, the court severed the lawsuit and ordered Enzo to serve individual complaints against the five defendants. We subsequently filed an answer and a counterclaim alleging that Enzo s patents are invalid. In July 2006, the court issued a decision regarding the construction of the claims in Enzo s patents that effectively limited the coverage of certain of those claims and, we believe, excludes certain of our products from the coverage of Enzo s patents. Summary judgment motions were filed by the defendants in January 2007, and a hearing with oral argument on those motions took place in July 2007, but a decision on those motions has not been rendered, and a trial date has not been set.

PharmaStem Therapeutics, Inc. (PharmaStem) filed a complaint dated February 22, 2002 against ViaCell, Inc., which is now our wholly owned subsidiary, and several other defendants in the United States District Court for the District of Delaware, alleging infringement of United States Patents No. 5,004,681 and No. 5,192,553, relating to certain aspects of the collection, cryopreservation and storage of hematopoietic stem cells and progenitor cells from umbilical cord blood (PharmaStem I). After several years of proceedings at the District Court level, the United States Court of Appeals for the Federal Circuit issued a decision in July 2007 that ViaCell did not infringe these two patents and that the two patents are invalid. PharmaStem filed a certiorari petition in January 2008 seeking to have the United States Supreme Court review the appellate court s decision as to the invalidity of the patents, but did not seek any further review of the non-infringement decision. However, the United States Supreme Court denied certiorari in March 2008, so the decision by the United States Court of Appeals for the Federal Circuit in favor of ViaCell is final and non-appealable. PharmaStem had also filed a second complaint against ViaCell and other defendants in July 2004 in the United States District Court for the District of Massachusetts, alleging infringement of United States Patents No. 6,461,645 and 6,569,427, which also relate to certain aspects of the collection, cryopreservation and storage of hematopoietic stem cells and progenitor cells from umbilical cord blood (PharmaStem II). The Delaware court granted ViaCell s motion in October 2005 to stay the proceedings in PharmaStem II pending the outcome of PharmaStem I and a decision from the United States Patent and Trademark Office (U.S. PTO) on certain patent re-examination

issues. On September 2, 2008, the U.S. PTO issued a Re-examination Certificate cancelling all claims of United States

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Patent No. 6,461,645, and on September 16, 2008, the U.S. PTO issued a Re-examination Certificate cancelling all claims of United States Patent No. 6,569,427. As a result of the cancellation of all patent claims involved in PharmaStem II by the U.S. PTO, we will seek a dismissal of all claims for relief set forth by PharmaStem in PharmaStem II.

We believe we have meritorious defenses to these lawsuits and other proceedings, and we are contesting the actions vigorously in all of the above unresolved matters. While each these matters is subject to uncertainty, in the opinion of our management, based on its review of the information available at this time, the resolution of these matters will not have a material adverse impact on our consolidated financial statements included in this annual report on Form 10-K.

We are also subject to various other claims, legal proceedings and investigations covering a wide range of matters that arise in the ordinary course of our business activities. Although, we have established accruals for potential losses that we believe are probable and reasonably estimable, in the opinion of our management, based on its review of the information available at this time, the total cost of resolving these other contingencies at December 28, 2008 should not have a material adverse effect on our consolidated financial statements included in this annual report on Form 10-K. Each of these matters is subject to uncertainties, and it is possible that some of these matters may be resolved unfavorably to us.

Item 4. ***Submission of Matters to a Vote of Security Holders***

Not applicable.

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EXECUTIVE OFFICERS OF THE REGISTRANT

Listed below are our executive officers as of February 26, 2009. No family relationship exists between any one of these officers and any of the other executive officers or directors.

Name	Position	Age
Gregory L. Summe	Executive Chairman of the Board	52
Robert F. Friel	Chief Executive Officer, President, and Director	53
Joel S. Goldberg	Senior Vice President, General Counsel, and Secretary	40
Richard F. Walsh	Senior Vice President and Chief Administrative Officer	56
John A. Roush	Senior Vice President and President Environmental Health	43
Daniel R. Marshak	Senior Vice President, Chief Scientific Officer, and President Greater China	51
Michael L. Battles	Vice President, Chief Accounting Officer, Acting Chief Financial Officer, and Chief Financial Officer Human Health	40

Gregory L. Summe, *52.* Prior to being named Executive Chairman of the Board in February 2008, Mr. Summe had served as our Chief Executive Officer since January 1, 1999 and as Chairman of the Board since April 27, 1999. He was appointed President and Chief Operating Officer and elected to our Board of Directors in early 1998. He began serving as a Senior Advisor to Goldman Sachs Capital Partners in February 2008. From 1993 to 1998, Mr. Summe held several management positions with AlliedSignal, Inc., now Honeywell International: President of the Automotive Products Group, President of Aerospace Engines, and President of General Aviation Avionics. Prior to joining AlliedSignal, Inc., he worked at General Electric, and was a partner at McKinsey & Company, where he worked from 1983 to 1992. Mr. Summe is the lead Director of State Street Corporation and a member of the Board of Directors at ADP, Inc. He holds a Bachelor of Science degree and a Master of Science degree in electrical engineering from the University of Kentucky and the University of Cincinnati, respectively, and a Master of Business Administration degree from the Wharton School at the University of Pennsylvania.

Robert F. Friel, 53. Mr. Friel was named our Chief Executive Officer effective February 1, 2008. Mr. Friel joined us in February 1999 as our Senior Vice President and Chief Financial Officer. In 2004, he was named Executive Vice President and Chief Financial Officer with responsibility for business development and information technology, in addition to his oversight of the finance function. In January 2006, he was named our Vice Chairman, President of Life and Analytical Sciences and elected to our Board of Directors. In July 2007, he was named President and Chief Operating Officer of the Company, effective August 1, 2007. From 1980 to 1999, he held several senior management positions with AlliedSignal, Inc., now Honeywell International. He holds a Bachelor of Arts degree in economics from Lafayette College and a Master of Science degree in taxation from Fairleigh Dickinson University. Mr. Friel is a Director of Fairchild Semiconductor, Inc. and serves on the Board of Trustees for the March of Dimes Foundation.

Joel S. Goldberg, *40*. Mr. Goldberg joined us in July 2008 as our Senior Vice President, General Counsel and Secretary. Prior to joining us in July 2008, Mr. Goldberg served as Vice President, Chief Compliance Officer and Secretary for Millennium Pharmaceuticals, Inc. During his seven years with Millennium, he focused in the areas of mergers and acquisitions, strategic alliances, investment and financing transactions, securities and healthcare related compliance, and employment law. Before joining Millennium, Mr. Goldberg was an associate at the law firm of Edwards & Angell, LLP, focusing on emerging companies, venture capital, securities and merger-related work. Mr. Goldberg graduated from the Northeastern University School of Law and also holds a Masters in Business Administration from Northeastern. He completed his undergraduate degree at the University of Wisconsin-Madison.

Richard F. Walsh, 56. Mr. Walsh joined us in July 1998 as our Senior Vice President of Human Resources and, in January 2006, was also named our Chief Administrative Officer. From 1995 to 1998, he served as Senior Vice President of Human Resources of ABB Americas, Inc., the United States subsidiary of an international

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engineering company. Prior to that, Mr. Walsh held a number of managerial positions in human resources with ABB starting in 1989. His prior employment was with Unilever, where he spent nine years in human resource management. Mr. Walsh holds a Bachelor of Science degree in marketing and a Master of Business Administration degree from LaSalle University, and a Master of Arts in counseling from Villanova University.

John A. Roush, 43. Mr. Roush has served as our Senior Vice President since 2006 and was named President of our Environmental Health segment in January 2009 after serving as Vice President and President of our Optoelectronics segment since 2004. Mr. Roush first joined us in 1999 as General Manager of a specialty lighting division within our Optoelectronics business, and subsequently held several additional roles within Optoelectronics. From 2001 to 2002, he served as Vice President & General Manager of the Sensors business, and from 2002 to 2004, he held the role of Vice President of Sales & Product Management. Before joining us, Mr. Roush held leadership positions with General Electric, AlliedSignal, Inc., now Honeywell International, and McKinsey & Company. Mr. Roush holds a Bachelor of Science degree in electrical engineering from Tufts University and a Master of Business Administration degree from the Harvard Business School.

Daniel R. Marshak, 51. Dr. Marshak was appointed our Senior Vice President in April 2008, and joined us as our Chief Scientific Officer in May 2006. In addition to these responsibilities, in May 2008, Dr. Marshak was appointed our President of Greater China. Prior to joining us, Dr. Marshak was with Cambrex Corporation since 2000, most recently as Vice President and Chief Technology Officer for Biotechnology. Dr. Marshak also previously held the positions of Senior Vice President and Chief Scientific Officer for Osiris Therapeutics, Inc. and Senior Staff Investigator, Cold Spring Harbor Laboratory. Dr. Marshak received his Bachelor of Arts degree in biochemistry and molecular biology from Harvard University, and his doctorate in biochemistry and cell biology from The Rockefeller University. Dr. Marshak performed postdoctoral research in pharmacology at Vanderbilt University and the National Institute of Health. Dr. Marshak is the author of more than 100 scientific publications and an inventor on six U.S. patents.

Michael L. Battles, 40. Mr. Battles has served as our Acting Chief Financial Officer since June 2008 and was named Chief Financial Officer of our Human Health segment in January 2009. Mr. Battles also continues to serve as our Vice President and Chief Accounting Officer. Mr. Battles joined us in November 2001 as Global Controller of our Analytical Instruments division, and in 2003 was named our Director of Technical Accounting, Controls and Compliance. In October 2005 he was appointed Vice President and Corporate Controller and in November 2006 he was also named Chief Accounting Officer. Prior to joining us, Mr. Battles held several positions at Deloitte & Touche LLP from 1990 until 2001, including senior manager, accounting and auditing from 1998 to 2001. Mr. Battles holds a Bachelor of Science degree in business administration with a concentration in accounting from the University of Vermont. Mr. Battles is also a Certified Public Accountant.

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PART II

Item 5. ***Market for Registrant s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities***

Market Price of Common Stock

Our common stock is listed and traded on the New York Stock Exchange. The following table sets forth the high and low per share sale prices for our common stock on that exchange for each quarter in fiscal years 2008 and 2007.

	2008 Fiscal Quarters			
	First	Second	Third	Fourth
High	$ 26.68			