

VEECO INSTRUMENTS INC
Form 10-K
March 02, 2009

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

FORM 10-K

(Mark
One)

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

For the fiscal year ended December 31, 2008

OR

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

For the transition period from _____ to _____
Commission file number 0-16244

VEECO INSTRUMENTS INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation or
Organization)

11-2989601

(I.R.S. Employer Identification No.)

Terminal Drive

Plainview, New York

(Address of Principal Executive Offices)

11803

(Zip Code)

Registrant's telephone number, including area code **(516) 677-0200**

Website: **www.veeco.com**

Securities registered pursuant to Section 12(b) of the Act:
Common Stock, par value \$.01 per share

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

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

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

Indicate by check mark whether the Registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark 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 references in Part III of this Form 10-K or any amendment to this Form 10-K.

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

| | | | |
|---|--|---|--|
| Large accelerated filer <input checked="" type="radio"/> | Accelerated filer <input type="radio"/> | Non-accelerated filer <input type="radio"/> | Smaller reporting company <input type="radio"/> |
| | | (Do not check if a smaller reporting company) | |

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

The aggregate market value of the voting stock held by non-affiliates of the Registrant, based on the closing price of the common stock on June 30, 2007 as reported on The Nasdaq National Market, was \$643,829,373. Shares of common stock held by each officer and director and by each person who owns 10% or more of the outstanding common stock have been excluded from this computation in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

At February 26, 2009, the Registrant had 32,175,961 outstanding shares of common stock.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's Proxy Statement for the Annual Meeting of Stockholders to be held on May 15, 2009 are incorporated by reference into Part III of this Annual Report on Form 10-K.

SAFE HARBOR STATEMENT

This Annual Report on Form 10-K (the "Report") contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Discussions containing such forward-looking statements may be found in Items 1, 3, 7, and 7A hereof, as well as within this Report generally. In addition, when used in this Report, the words "believes," "anticipates," "expects," "estimates," "plans," "intends," and similar expressions are intended to identify forward-looking statements. All forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially from projected results. These risks and uncertainties include, without limitation, the following:

Negative worldwide economic conditions could result in a decrease in our net sales and an increase in our operating costs, which could adversely affect our business and operating results;

Our sales to data storage and HB-LED manufacturers are highly dependent on these manufacturers' sales for consumer electronics applications, which can experience significant volatility due to seasonal and other factors, which could materially adversely impact our future results of operations;

We are exposed to risks associated with entering the emerging solar industry;

We may be required to take additional impairment charges for goodwill and indefinite-lived intangible assets or definite-lived intangible and long-lived assets;

Any failure by us to execute our planned cost reductions successfully could result in total costs and expenses that are greater than expected;

The cyclicity of the industries we serve directly affects our business;

We operate in industries characterized by rapid technological change;

We face significant competition;

We depend on a limited number of customers that operate in highly concentrated industries;

The timing of our orders, shipments, and revenue recognition may cause our quarterly operating results to fluctuate significantly;

Changes in our product mix may cause our quarterly operating results to fluctuate significantly;

Our backlog is subject to customer cancellation or modification and such cancellation could result in decreased sales and increased provisions for excess and obsolete inventory;

Our sales cycle is long and unpredictable;

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The failure to successfully implement outsourcing activities and other operational initiatives could adversely affect results of operations;

Manufacturing interruptions or delays could affect our ability to meet customer demand, while the failure to estimate customer demand accurately could result in excess or obsolete inventory;

We rely on a limited number of suppliers;

Our inability to attract, retain, and motivate key employees could have a material adverse effect on our business;

We are exposed to the risks of operating a global business;

We are subject to foreign currency exchange risks;

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The enforcement and protection of our intellectual property rights may be expensive and could divert our valuable resources;

We may be subject to claims of intellectual property infringement by others;

Our acquisition strategy subjects us to risks associated with evaluating and pursuing these opportunities and integrating these businesses;

We are substantially leveraged, which could adversely affect our ability to adjust our business to respond to competitive pressures and to obtain sufficient funds to finance our future needs;

Changes in accounting pronouncements or taxation rules or practices may adversely affect our financial results;

The price of our common shares may be volatile and could decline significantly;

We are subject to internal control evaluations and attestation requirements of Section 404 of the Sarbanes-Oxley Act;

We are subject to risks of non-compliance with environmental and safety regulation;

We have significant operations in California and other locations which could be materially and adversely impacted, in the event of a natural disaster or other significant disruption;

We have adopted certain measures that may have anti-takeover effects which may make an acquisition of our Company by another company more difficult; and

The matters set forth in this Report generally, including the risk factors set forth in "Item 1A. Risk Factors."

Consequently, such forward-looking statements should be regarded solely as the Company's current plans, estimates, and beliefs. The Company does not undertake any obligation to update any forward-looking statements to reflect future events or circumstances after the date of such statements.

Item 1. Business

The Company

Veeco Instruments Inc. (together with its consolidated subsidiaries, "Veeco," the "Company" or "we") designs and manufactures enabling solutions for customers in the high brightness light emitting diode ("HB-LED"), solar, data storage, semiconductor, scientific research and industrial markets. We have leading technology positions in each of our three reportable segments: LED & Solar Process Equipment, Data Storage Process Equipment, and Metrology.

In our LED & Solar segment, we design and manufacture metal organic chemical vapor deposition ("MOCVD") systems, molecular beam epitaxy ("MBE") systems and sources, and other types of deposition systems such as web coaters, which we sell to manufacturers of HB-LEDs, solar cells and telecommunications devices and to universities and scientific research centers.

In our Data Storage segment, we design and manufacture ion beam etch, ion beam deposition, diamond-like carbon, physical vapor deposition, and dicing and slicing products primarily used to create thin film magnetic heads ("TFMHs") that read and write data on hard drives.

In our Metrology segment, we design and manufacture atomic force microscopes ("AFMs"), stylus profilers, and optical interferometers used to provide critical surface measurements in research and production environments. Our broad line of AFMs, scanning probe microscopes ("SPMs"), optical interferometers, and stylus profilers are used in universities, research facilities and scientific centers worldwide. In production environments such as semiconductor, data storage and other industries, our metrology instruments enable customers to monitor their products throughout the manufacturing process to improve yields, reduce costs, and improve product quality.

Veeco was organized as a Delaware corporation in 1989.

Our Strategy

Our strategy for growth and improved profitability focuses on the following key activities:

Focusing our efforts on those technologies in which we have leading market share, providing differentiated technology solutions to address customers' next generation product development roadmaps;

Increasing our research and development spending in end markets that we believe offer high-growth opportunities, such as our LED & Solar and Metrology segments;

Improving our operational efficiency in each segment through better supply chain management, manufacturing outsourcing and other activities to lower costs and increase profitability, and;

Developing strategic relationships with worldwide technology leaders and offering these customers high-quality service and applications support in order to improve their time-to-market on leading edge devices.

We serve our worldwide customers through our global sales and service organization located throughout the United States, Europe, Japan, and Asia Pacific. At December 31, 2008, we had 1,195 employees, with manufacturing, research and development, and engineering facilities located in New York, Arizona, California, Colorado, Minnesota, Massachusetts and New Jersey.

Business Overview and Industry Trends

General Introduction: Our thin film deposition, etch, measurement and other technologies are applicable to the creation of a broad range of microelectronic components, including HB-LEDs, solar cells, thin film magnetic heads and semiconductor devices. Our customers who manufacture these

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devices continue to invest in new technology equipment in order to advance their next generation products and deliver more efficient and cost effective technology solutions.

Starting at the end of 2008 and continuing through the beginning of 2009, the global economic downturn, constrained financing environment and a slowdown in capital spending on equipment is impacting most of our end markets and customers. While it is currently unclear how long this overall negative business climate will continue, we believe we are well positioned to capitalize on long-term technology growth opportunities and are preparing the Company to maximize positive multi-year industry trends. A particular strategic focus for Veeco has been to allocate additional research and development spending towards end markets that we believe offer significant growth opportunities, such as the LED and solar markets, as contrasted with traditional, maturing markets such as data storage and semiconductor.

The following is a review of our three reportable segments and the multi-year technology trends that impact each.

LED & Solar Business Overview and Trends: We are a leading supplier of process equipment solutions used to create a broad range of compound semiconductor-based devices such as high-brightness LEDs, solar cells and telecommunications devices. We are the only supplier of both MOCVD and MBE systems, the two key epitaxial deposition technologies used for these applications. MOCVD and MBE technologies are used to grow compound semiconductor materials (such as GaAs (gallium arsenide), GaN (gallium nitride), As/P (arsenic phosphide) and InP (indium phosphide)) at the atomic scale. Epitaxy is the critical first step in compound semiconductor wafer fabrication and is considered to be the highest value added process, ultimately determining device functionality and performance.

Strategies Unlimited, an LED industry research organization, forecasts that the market for HB-LEDs will grow from \$4.2 billion in 2007 to over \$11.0 billion in 2012, for a compound annual growth rate ("CAGR") of 20%. We believe that the HB-LED market, while cyclical, represents a high-growth opportunity for us due to the expanding applications for HB-LEDs, such as backlighting for large screen flat panel TVs (LCD liquid crystal displays), laptop computers, automotive applications, and general illumination. In order to gain market share in light of this growth opportunity, we have introduced several generations of MOCVD tools, most recently our TurboDisc® K-Series MOCVD systems. By introducing new systems, we are focused on delivering better uniformity and repeatability, which helps our customers to make higher-brightness HB-LEDs of consistent quality. We also intend to continue to invest heavily in research and development in order to deliver more advanced MOCVD solutions to our customers.

A related application for us is in the solar market. We currently sell our MOCVD tools to manufacturers of triple junction solar cells as well as our thermal deposition sources to manufacturers of CIGS (copper, indium, gallium, selenide) thin film solar cells. The solar industry is emerging as a significant new market opportunity for us. The global energy dilemma is resulting in a significant amount of new research and spending into solar technologies as an alternative energy solution since it is non-polluting and has the potential to supply the world with high energy efficiency at low cost. While many of today's solar panels are based upon older silicon technologies, thin film CIGS offers the potential for lower manufacturing costs, has the highest efficiency of the thin film technologies and Panel Photovoltaic ("PV") devices can be manufactured on rigid or flexible substrates. According to Bank of America, thin film photovoltaic technologies will grow from less than 5% of total PV solar panel production in 2005 to over 20% in 2010. Since PV manufacturers often build their own equipment, there is a market opportunity emerging for equipment suppliers such as Veeco. To capitalize on this opportunity, in 2008 we purchased Mill Lane Engineering, a manufacturer of web coating technology, to make flexible CIGS solar cells. We are increasing our research and development spending in CIGS technology since we believe it offers a significant growth opportunity. According to a

May 2008 report presented by the National Renewable Energy Labs ("NREL"), future CIGS PV panels are projected to be "the most competitive thin film technology" based upon module efficiency and relative cost basis. CIGS solar panels have broad-based end market applications for solar farms, integrated building PV, rooftop grids and portable devices.

Our LED & Solar segment has experienced high revenue growth in the last three years and now represents our largest segment.

Data Storage Business Overview and Trends: Worldwide storage demand continues to increase, driven by intelligent internet storage, e-mail, external storage devices, and new consumer applications (e.g. digital video recorders) now reaching higher volume. While much has been written about the competition hard disk drives ("HDDs") face from flash memory, we believe that HDDs will continue to provide the best value for mass storage and will remain at the forefront of large capacity storage applications. In fact, the use of disk drives in many types of consumer applications has resulted in growth in the number of hard drive units shipped, which is expected to continue. According to data storage research firm TrendFocus's 2008 report, consumer electronic applications of HDDs are forecasted to grow at a CAGR of 12.2% from 2007 to 2012.

While technology change continues in data storage, the industry is going through a period of maturation, including vertical integration and consolidation, which has led to decreased capital investment. As a result of this consolidation and evolving customer landscape, we have taken actions to right-size our data storage businesses and product lines. We are refocusing our research and development efforts, discontinued several product lines, and are consolidating facilities. We continue to maintain our commitment to the data storage industry and believe we are well-aligned to customer's technology requirements and demand for lower cost of ownership tools.

Metrology Business Overview and Industry Trends: Our Metrology segment sells its products to a broad range of industry and research customers. This business has often tracked the growth of the economy and Gross Domestic Product, as instruments are used in a wide range of industrial applications. A meaningful trend in the research industry is the growth in nanotechnology investment occurring at the scientific and university level. Nanotechnology is the ability to design and control the structure of an object at all lengths from the atom up to the macro scale. Nanoscience and nanotechnology have received significant funding from the U.S. government and other countries, and have impacted many industries, including life sciences, data storage, semiconductor, telecommunications, and materials sciences. We have developed specific metrology instruments aligned to these applications. In atomic force microscopy, we are developing new tools for university and government research in such areas as security, energy and biotechnology. We also believe that long-term growth opportunities exist for our Metrology instruments in industrial applications, such as precision manufacturing, clean energy (LED and Solar), and microelectronics. We have launched new three-dimensional ("3D") advanced optical profilers used for surface topography, roughness and defect characterization and new high-precision 2D and 3D surface stylus profilers for process development and yield management.

Many of our tools are sold to semiconductor and data storage customers who use metrology tools in their wafer fabrication facilities to detect process deviations as early in the manufacturing process as possible. We have sold over 450 automated AFM systems used in-line by manufacturers of semiconductor chips and data storage TFMHs in their fabrication facilities. While the outlook for capital expenditures by semiconductor manufacturers is currently not favorable, we believe that Veeco offers unique metrology technology solutions for our customers.

Our Products

We have three business segments, LED & Solar Process Equipment, Data Storage Process Equipment, and Metrology. Net sales for these business segments is shown below for the years indicated:

| | Year ended December 31, | | |
|--|-------------------------|----------|----------|
| | 2008 | 2007 | 2006 |
| | (Dollars in millions) | | |
| LED & Solar Process Equipment | \$ 165.8 | \$ 115.9 | \$ 94.2 |
| % of net sales | 37.4% | 28.8% | 21.4% |
| Data Storage Process Equipment | \$ 149.1 | \$ 136.1 | \$ 174.7 |
| % of net sales | 33.7% | 33.8% | 39.6% |
| Metrology | \$ 127.9 | \$ 150.5 | \$ 172.1 |
| % of net sales | 28.9% | 37.4% | 39.0% |
| Total net sales | \$ 442.8 | \$ 402.5 | \$ 441.0 |

See Note 9 to our Consolidated Financial Statements for additional information regarding our reportable segments and sales by geographic location.

LED & Solar Process Equipment

Metal Organic Chemical Vapor Deposition Systems: We are one of the world's leading suppliers of MOCVD technology. MOCVD production systems grow gallium nitride-based devices, (green and blue HB-LEDs) and arsenic phosphide-based devices (red, orange, and yellow HB-LEDs), which are used today in large area signage, mobile device backlighting, and specialty illumination. Our As/P MOCVD Systems also are used to make high-efficiency concentrator solar cells.

Molecular Beam Epitaxy Systems: MBE is the process of precisely depositing epitaxially aligned atomically thin crystal layers, or epilayers, of elemental materials onto a substrate in an ultra-high vacuum environment. For many compound semiconductors, MBE is the critical first step of the fabrication process, ultimately determining device functionality and performance. We provide a broad array of MBE components and systems for research and production applications and, in 2007, introduced a new line of MBE components for the solar industry.

Web Coaters for Flexible Solar Cells: In the second quarter of 2008 we purchased Mill Lane Engineering, a manufacturer of web deposition equipment used to make CIGS solar cells. Our advanced web deposition platform, FastFlex, was introduced in September 2008 and offers high throughput and excellent performance for flexible thin film solar cell production, contributing to a lower cost of ownership, due to its high quantity of deposition zones in a compact footprint.

Data Storage Process Equipment

Ion Beam Deposition ("IBD") Systems: Our NEXUS® IBD systems utilize ion beam technology to deposit precise layers of thin films and may be included on our cluster system platform to allow either parallel or sequential etch/deposition processes. IBD systems deposit high purity thin film layers and provide maximum uniformity and repeatability. In addition to IBD systems, we provide a broad array of ion beam sources.

Ion Beam Etch ("IBE") Systems: We develop and produce NEXUS IBE systems, which etch precise, complex features for use primarily by data storage and telecommunications device manufacturers in the fabrication of discrete and integrated microelectronic devices.

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Physical Vapor Deposition ("PVD") Systems: Our NEXUS PVD systems offer manufacturers a highly flexible deposition platform for developing next-generation data storage and compound semiconductor applications.

Diamond-Like Carbon ("DLC") Deposition Systems: Our DLC deposition systems deposit protective coatings on advanced TFMHs.

Chemical Vapor Deposition ("CVD") Systems: Our NEXUS CVD systems, introduced to the market in 2008, deposit conformal films for advanced TFMH applications.

Precision Lapping, Slicing, and Dicing Systems: Our Optium® Slider process equipment products generally are used in "back-end" applications in a data storage fab where TFMHs or "sliders" are fabricated. This equipment includes lapping tools which enable precise material removal within three nanometers which is necessary for next generation TFMHs. We also manufacture instruments that slice and dice wafers into rowbars and TFMHs.

Metrology

Our surface metrology product line includes atomic force/scanning probe microscopes, optical metrology tools, and stylus profilers for a wide range of applications in research and industry.

Atomic Force/Scanning Probe Microscopes: We have the world's broadest line of research AFMs and SPMs. Our NanoScope® and Dimension® products are widely used by leading nanotechnology research centers worldwide. Veeco was a pioneer of AFM technology, and we continue to develop new products for production and research applications. In 2008, Veeco saw increased usage of several new AFM/SPM products including our BioScope II, Innova and others. We recently introduced our newest generation research AFM platform, the Dimension Icon, a high-performance, easy-to-use AFM which was engineered from the ground up to incorporate all of our latest AFM modes and techniques. We also produce a broad range of automated AFM/SPM products designed for data storage, semiconductor and research and other industrial applications. Our InSight Automated AFM is the only metrology system available with the accuracy and precision required for non-destructive, high resolution 3D measurements of critical 45nm and 32nm semiconductor features, with the speed to qualify as a true fab tool.

The atomic force microscope "feels" the sample surface directly using a probe consisting of a very sharp tip or probe mounted on a microscopic spring arm (a cantilever). The interaction of the probe with the surface is detected by measuring deflections of the cantilever with an optical beam system. AFMs, which permit non-destructive measurements and resolution at the molecular level, can directly measure both lateral and vertical shapes with nanometer resolution and with direct 3D capability. In addition to topography, AFMs can also directly measure the magnetic field (such as magnetic bits on a hard disk); electric field; hardness (such as thin film integrity); electric charge density (such as dopant concentrations in semiconductors); temperature (such as temperature distribution in disk drive recording head elements); and various chemical properties (such as the difference in binding preference among biological molecules). AFMs make these measurements on almost any surface; in air, vacuum or under fluids; and with minimal sample preparation.

Stylus Profilers: Stylus profilers are used to produce cross-sectional representations and/or quantitative measurements, which are displayed on a video monitor. Our Dektak® stylus profiler systems utilize a precision translation stage which creates relative motion between the sample and a diamond tipped stylus. As the sample moves under the stylus, surface variations cause vertical translation of the stylus, which is tracked and measured. Stylus profilers are widely used for height, width, pitch, and roughness measurements of features on semiconductor devices, magnetic and optical storage media (such as hard drives), flat panel displays, and hybrid circuits. Stylus profilers are often used for direct contact measurements and to measure larger feature sizes than our AFMs. We believe

that our stylus profiler products are recognized for their accuracy, repeatability, ease of use, and technology features, and are designed to meet a range of industry specifications and customer requirements.

Optical/Stylus Metrology (Interferometry) Products: Substantially all of our optical metrology instruments are designed to make non-contact surface measurements using interferometry technology. This process involves the use of either white light or laser sources to measure surface roughness and shape by creating interference patterns from the optical path difference between the test surface and a reference surface. Using a combination of phase shifting interferometry and vertical scanning interferometry, these instruments are designed to rapidly and precisely measure and characterize a range of surface sizes and shapes. Our major optical products include the Wyko® NT family and SP3000 and the HD-Series optical profilers. The NT family product line measures surface roughness, heights, and shapes. The HD-Series instruments are a line of microstructure measurement equipment used by manufacturers of mass memory components including manufacturers of TFMHs, disks, drives, and suspensions. HD-Series instruments are used for research and development, process control and improvement, incoming parts inspection, final parts inspection, and field failure analysis.

Service and Sales

We sell our products and services worldwide through various strategically located sales and service facilities in the U.S., Europe, Asia Pacific, and Japan, and we believe that our customer service organization is a significant factor in our success. We provide service and support on a warranty, service contract or an individual service-call basis. We also offer enhanced warranty coverage and services, including preventative maintenance plans, on-call and on-site service plans and other comprehensive service arrangements, product and application training, consultation services, and a 24-hour hotline service for certain products. We believe that offering 24 hour, 7 day per week worldwide support creates stronger relationships with customers and provides us with a significant competitive advantage. Revenues from the sale of parts, service, and support represented approximately 19%, 21%, and 20% of our net sales for the years ended December 31, 2008, 2007, and 2006, respectively. Parts sales represented approximately 14%, 17%, and 17% of our net sales for those periods, respectively, and service and support sales were 5%, 4%, and 3%, respectively.

Customers

We sell our products to many of the world's major HB-LED, solar, data storage and semiconductor manufacturers, and to customers in other industries, research centers, and universities. We rely on certain principal customers for a significant portion of our sales including Seagate Technology, Inc. Sales to Seagate accounted for 17% of Veeco's total net sales in 2008. If any principal customer discontinues its relationship with us or suffers economic difficulties, our business, prospects, financial condition, and operating results could be materially and adversely affected.

Research and Development

We believe that continued and timely development of new products and enhancements to existing products are necessary to maintain our competitive position. We work collaboratively with our customers to help ensure our technology and product roadmaps are aligned with customer requirements. Our research and development programs are organized by product line and new or improved products have been introduced into each of our product lines in each of the past three years.

Our research and development expenses were approximately \$60.4 million, \$61.2 million, and \$61.9 million, or approximately 13.6%, 15.2%, and 14.0% of net sales for the years ended December 31, 2008, 2007, and 2006, respectively. These expenses consisted primarily of salaries, project material, and other product development and enhancement costs.

Suppliers

We currently outsource, and plan to increase the outsourcing of, certain functions to third parties, including the manufacture of all or substantially all of our new MOCVD systems and certain of our data storage process equipment systems. At present, we rely primarily on two suppliers for the majority of the manufacture of these MOCVD and data storage process equipment systems. We plan to maintain internal manufacturing capability for these systems at least until such time as we have qualified one or more alternate suppliers to perform this manufacturing. The failure of our present supplier to meet its contractual obligations under our supply arrangement and our inability to make alternative arrangements or resume the manufacture of these systems ourselves could have a material adverse effect on our revenues, profitability, cash flows, and relationships with our customers.

In addition, certain of the components and sub-assemblies included in our products are obtained from a single source or a limited group of suppliers. Our inability to develop alternative sources, if necessary, could result in a prolonged interruption in supply or a significant increase in the price of one or more components, which could adversely affect our operating results.

Manufacturing

Our principal manufacturing activities, which consist principally of assembly, integration, and test operations, are organized by product and take place at our facilities in Plainview, New York; Santa Barbara and Camarillo, California; Tucson, Arizona; Ft. Collins, Colorado; Somerset, New Jersey; St. Paul, Minnesota; and Lowell, Massachusetts.

Product Organization

Our sales, marketing, manufacturing and research and development functions are organized by product families. We believe that this organizational structure allows each product family manager to more closely monitor the products for which he is responsible, resulting in more efficient sales, marketing, manufacturing, and research and development. We emphasize customer responsiveness, customer service, high-quality products, and an interactive management style. By implementing these management philosophies, we believe that we have increased our competitiveness and are well-positioned for future growth.

Backlog

Our backlog declined from \$173.5 million at December 31, 2007 to \$147.2 million at December 31, 2008. During the year ended December 31, 2008, we experienced net backlog adjustments of approximately \$8.0 million, consisting of \$18.7 million for order cancellations primarily from Asia Pacific MOCVD customers and \$2.0 million of adjustments related to foreign currency translation, partially offset by \$12.7 million of backlog acquired in the Mill Lane acquisition. Our backlog generally consists of product orders for which a purchase order has been received and which are scheduled for shipment within twelve months. We schedule production of our systems based on order backlog and customer commitments. Because certain of our orders require products to be shipped in the same quarter in which the order is received, and because changes in delivery schedules, cancellations of orders and delays in shipment are possible, we do not believe that the level of backlog at any point in time is an accurate indicator of our future performance. For certain sales arrangements we require a deposit for a portion of the sales price before shipment. As of December 31, 2008 we have deposits and advanced billings of \$18.0 million. Due to changing business conditions and weak capital equipment spending by our customers, we may continue to experience cancellation and/or rescheduling of orders, particularly as the economic downturn has become more significant and wide ranging as credit availability has tightened and financial conditions have deteriorated. We expect 2009 to be a very difficult year for the Company as we continue to experience weak new order conditions and customers

foregoing capacity and technology investments. In addition, customers have delayed approximately \$30.0 million of shipments originally scheduled for the first quarter of 2009 until later in the year.

Competition

In each of the markets that we serve, we face substantial competition from established competitors, some of which have greater financial, engineering, manufacturing, and marketing resources than us, as well as from smaller competitors. In addition, many of our products face competition from alternative technologies, some of which are more established than those used in our products. Significant factors for customer selection of metrology and process equipment tools include system performance, accuracy, repeatability, ease of use, reliability, cost of ownership, and technical service and support. We believe that we are competitive based on the customer selection factors in each market we serve. None of our competitors compete with us across all of our product lines.

We compete with process equipment manufacturers such as Anelva, Hitachi, Riber, and Aixtron. We compete with metrology product manufacturers such as KLA-Tencor, Seiko, Hitachi, Zygo, Agilent, and a variety of small manufacturers.

Intellectual Property

Our success depends in part on our proprietary technology. Although we attempt to protect our intellectual property rights through patents, copyrights, trade secrets, and other measures, there can be no assurance that we will be able to protect our technology adequately or that competitors will not be able to develop similar technology independently.

We have patents and exclusive and non-exclusive licenses to patents owned by others covering certain of our products, which we believe provide us with a competitive advantage. We have a policy of seeking patents on inventions concerning new products and improvements as part of our ongoing research, development, and manufacturing activities. We believe that there is no single patent or exclusive or non-exclusive license to patents owned by others which is critical to our operations, and that the success of our business depends primarily on the technical expertise, innovation, and experience of our employees.

We also rely upon trade secret protection for our confidential and propriety information. There can be no assurance that others will not independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or that we can meaningfully protect our trade secrets. In addition, we cannot be certain that we will not be sued by third parties alleging that we have infringed their patents or other intellectual property rights. If any third party sues us, our business, results of operations or financial condition could be materially adversely affected.

Employees

At December 31, 2008, we had 1,195 employees, of which there were 320 in manufacturing and testing, 173 in sales and marketing, 159 in service, 56 in product support, 332 in engineering, research, and development, and 155 in information technology, general administration and finance. The success of our future operations depends in large part on our ability to recruit and retain engineers, technicians, and other highly-skilled professionals who are in considerable demand. We feel that we have adequate programs in place to attract, motivate, and retain our employees, and we plan to monitor industry practices to make sure that our compensation and employee benefits remain competitive. However, there can be no assurance that we will be successful in recruiting or retaining key personnel. We believe that our relations with our employees are good.

Available Information

We file annual, quarterly, and current reports, information statements, and other information with the Securities and Exchange Commission (the "SEC"). The public may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The address of that site is <http://www.sec.gov>.

Internet Address

We maintain a website where additional information concerning our business and various upcoming events can be found. The address of our website is www.veeco.com. We provide a link on our website, under Investors Financial Info SEC Filings, through which investors can access our filings with the SEC, including our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports. These filings are posted to our website, as soon as reasonably practicable after we electronically file such material with the SEC.

Item 1A. Risk Factors

Risk Factors That May Impact Future Results

In addition to the other information set forth herein, the following risk factors should be carefully considered by shareholders of and potential investors in the Company.

Negative worldwide economic conditions could result in a decrease in our net sales and an increase in our operating costs, which could adversely affect our business and operating results.

If the current worldwide economic downturn continues, many of our customers may delay or reduce their purchases of our products and services. If the negative conditions in the global credit markets prevent our customers' access to credit, product orders in these channels may decrease which could result in lower revenue. Likewise, if our suppliers face challenges in obtaining credit, in selling their products or otherwise in operating their businesses, they may become unable to continue to offer the materials we use to manufacture our products. Our results of operations would be further adversely affected if we were to experience lower than anticipated order levels, cancellations of orders in backlog, postponement of customer deliveries, or pricing pressure as a result of this prolonged slowdown. Any negative effect on our earnings may affect our borrowing availability and potentially result in noncompliance with the restrictive covenants of our credit agreement.

In addition, the current negative worldwide economic conditions and market instability make it increasingly difficult for us, our customers and our suppliers to accurately forecast future product demand, which could result in obsolete inventory. Alternatively, this forecasting difficulty could cause a shortage of products, or materials used in our products, that could result in an inability to satisfy demand for our products and a loss of market share.

Furthermore, we finance a portion of our sales through trade credit. In addition to ongoing credit evaluations of our customers' financial condition, we seek to mitigate our credit risk by obtaining deposits and/or letters of credit on certain of our sales arrangements. We could suffer significant losses if a customer whose accounts receivable we have not secured fails or is otherwise unable to pay us. A significant loss in collections on our accounts receivable would have a negative impact on our financial results.

Our sales to data storage and HB-LED manufacturers are highly dependent on these manufacturers' sales for consumer electronics applications, which can experience significant volatility due to seasonal and other factors, which could materially adversely impact our future results of operations.

The demand for hard disk drives and HB-LEDs is highly dependent on sales of consumer electronics, such as computers, digital video recorders, camcorders, MP3/4 players, cell phones and flat panel televisions. Manufactures of hard disk drives and HB-LEDs are among our largest customers and have accounted for a substantial portion of our revenues for the past several years. However, spending on consumer electronics has deteriorated significantly and may continue to deteriorate in many countries and regions, including the United States, due to the poor global economic conditions. For example, factors that could influence the levels of spending on consumer electronic products include consumer confidence, access to credit, volatility in fuel and other energy costs, conditions in the residential real estate and mortgage markets, labor and healthcare costs and other macroeconomic factors affecting consumer spending behavior. These and other economic factors could have a material adverse effect on the demand for our customers' products and, in turn, on our customers' demand for our products and services and on our financial condition and results of operations.

In addition, the demand for some of our customers' products can be even more volatile and unpredictable due to the possibility of competing technologies, such as flash memory as an alternative to hard disk drives. Flash memory has come down in cost while increasing in capacity, resulting in a rapid shift in demand from the hard disk drives made by our customers to alternative storage technologies. Unpredictable fluctuations in demand for our customers' products or rapid shifts in demand from our customers' products to alternative technologies could materially adversely impact our future results of operations.

We are exposed to risks associated with entering the emerging solar industry.

An increasing strategic focus for Veeco is to supply equipment to the solar industry. In addition to the other risk factors described herein, the solar industry is characterized by other specific risks, including:

changes in demand for solar photovoltaic ("PV") products arising from, among other things, the cost and performance of solar PV technology compared to other energy sources, such as oil, coal, wind, hydroelectric and nuclear;

the adequacy of or changes in government energy policies, including the availability and amount of government subsidies or incentives for solar power;

whether thin film solar technologies, in particular Copper Indium Gallium Selenide ("CIGS") technology, will be broadly adopted as a viable solar technology; and

customers' and end-users' access to affordable financial capital.

If we do not successfully manage the risks resulting from these and other changes occurring in the solar industry, its business, financial condition and results of operations could be materially and adversely affected.

In addition, solar is a relatively new market for us and poses the following additional challenges:

the need to attract, motivate and retain employees with skills and expertise in this new area;

new and more diverse customers and suppliers, including some with limited operating histories, uncertain and/or limited funding and/or evolving business models;

different customer service requirements;

new and/or different competitors with potentially more financial or other resources and industry experience; and

third parties' intellectual property rights.

If we do not successfully manage the risks resulting from its entry into the solar market, our business, financial condition and results of operations could be materially and adversely affected.

We may be required to take additional impairment charges for goodwill and indefinite-lived intangible assets or definite-lived intangible and long-lived assets.

We are required to assess goodwill and indefinite-lived intangible assets annually for impairment, or on an interim basis whenever events occur or circumstances change, such as an adverse change in business climate or a decline in the overall industry, that would more likely than not reduce the fair value of a reporting unit below its carrying amount. We are also required to test our definite-lived intangible and long-lived assets, including acquired intangible assets and property, plant and equipment, for recoverability and impairment whenever there are indicators of impairment, such as an adverse change in business climate.

During the fourth quarter of 2008, the economic downturn became more significant and wide ranging as credit availability tightened and overall business and economic conditions deteriorated. It became apparent that the revenue, profitability, growth and other assumptions that we used in our fair value determination at October 1, 2008 (our annual measurement date), required revisions. Additionally, we realized a significant decline in our market capitalization which resulted in the carrying value of our net assets exceeding our market capitalization. Given these factors, we were required to perform an interim goodwill and indefinite-lived intangible asset impairment assessment as of December 31, 2008. In addition, due to the presence of such impairment indicators, we performed an analysis as of December 31, 2008 of our definite-lived intangible and long-lived assets. Based on these analyses, we incurred an asset impairment charge of \$73.0 million consisting of \$52.3 million related to goodwill, \$5.0 million of indefinite-lived intangible assets, \$14.6 million related to definite-lived intangible assets and \$1.1 million in property, plant and equipment.

At December 31, 2008, we had \$59.2 million of goodwill and \$103.3 million of intangible and long-lived assets. As part of our long-term strategy, we may pursue future acquisitions of other companies or assets which could potentially increase our goodwill and intangible and long-lived assets. Further adverse changes in business conditions could materially impact our estimates of future operations and result in additional impairment charges to these assets. If our goodwill or intangible and long-lived assets were to become further impaired, our results of operations could be materially and adversely affected.

Any failure by us to execute our planned cost reductions successfully could result in total costs and expenses that are greater than expected.

We have undertaken restructuring plans to bring operational expenses to appropriate levels for our business, including consolidation of business units, reduction in manufacturing facilities and significant personnel reductions. We may have further workforce reductions or rebalancing actions in the future. The reduction of personnel and consolidation of facilities may adversely affect our ability to manufacture our products in required volumes to meet customer demand and may result in other disruptions that affect our products and customer service, such as a decrease in employee morale and the failure to meet operational targets due to the loss of employees. We cannot be certain that these activities and transfers will be implemented on a cost-effective basis without delays or disruption in our production and without adversely affecting our customer relationships and results of operations.

The cyclical nature of the industries we serve directly affects our business.

Our business depends in large part upon the capital expenditures of manufacturers in the HB-LED, solar, data storage, and semiconductor markets, as well as customers in the scientific research and industrial market. We are subject to the business cycles of these industries, the timing, length, and volatility of which are difficult to predict. These industries have historically been highly cyclical, have experienced significant economic downturns in the last decade and have suffered significant adverse consequences in the current economic downturn. As a capital equipment provider, our revenues depend in large part on the spending patterns of these customers, who often delay expenditures or cancel or reschedule orders in reaction to variations in their businesses or general economic conditions. In downturns, we must be able to quickly and effectively align our costs with prevailing market conditions, as well as motivate and retain key employees. However, because a high proportion of our costs are fixed, our ability to reduce expenses quickly in response to revenue shortfalls is limited. A downturn in one or more of these industries could have a material adverse effect on our business, financial condition, and operating results. During periods of rapid growth, we must be able to acquire and/or develop sufficient manufacturing capacity to meet customer demand, and attract, hire, assimilate, and retain a sufficient number of qualified people. We cannot give assurances that our net sales and operating results will not be adversely affected if our customers experience economic downturns or slowdowns in their businesses.

We operate in industries characterized by rapid technological change.

The HB-LED, solar, data storage, semiconductor, and scientific research and industrial industries are subject to rapid technological change. Our ability to remain competitive depends on our ability to enhance existing products and develop and manufacture new products in a timely and cost effective manner and to accurately predict technology transitions. Because new product development commitments must be made well in advance of sales, we must anticipate the future demand for products in selecting which development programs to fund and pursue. Our financial results for 2009 will depend to a great extent on the successful introduction of several new products, many of which require achieving increasingly stringent technical specifications. The current economic downturn has slowed the rate of investment in and adoption of new technologies, which may make it more difficult for us to be successful in the introduction of new products and technologies. We cannot be certain that we will be successful in selecting, developing, manufacturing, and marketing new products or new technologies or in enhancing existing products.

We face significant competition.

We face significant competition throughout the world in each of our reportable segments. Many of our competitors have greater financial, engineering, manufacturing, and marketing resources than us. In addition, we face competition from smaller emerging equipment companies whose strategy is to provide a portion of the products and services we offer, using innovative technology to sell products into specialized markets. New product introductions or enhancements by our competitors could cause a decline in sales or loss of market acceptance of our existing products. Increased competitive pressure could also lead to intensified price competition resulting in lower margins. Our failure to compete successfully with these other companies would seriously harm our business.

We depend on a limited number of customers that operate in highly concentrated industries.

Our customer base is and has been highly concentrated. Orders from a relatively limited number of customers have accounted for, and likely will continue to account for, a substantial portion of our net sales, which may lead customers to demand pricing and other terms less favorable to us. Based on net sales, Seagate Technology, Inc. is our largest customer, accounting for 17%, 10%, and 18% of our total net sales in 2008, 2007, and 2006, respectively.

If a principal customer discontinues its relationship with us or suffers economic setbacks, such as those currently being experienced by our data storage and semiconductor customers, our business, financial condition, and operating results could be materially and adversely affected. Our ability to increase sales in the future will depend in part upon our ability to obtain orders from new customers. We cannot be certain that we will be able to do so. In addition, because a relatively small number of large manufacturers, many of whom are our customers, dominate the industries in which they operate, it may be especially difficult for us to replace these customers if we lose their business. A substantial portion of orders in our backlog are orders from our principal customers.

In addition, a substantial investment is required by customers to install and integrate capital equipment into a production line. As a result, once a manufacturer has selected a particular vendor's capital equipment, we believe that the manufacturer generally relies upon that equipment for the specific production line application and frequently will attempt to consolidate its other capital equipment requirements with the same vendor. Accordingly, if a customer selects a competitor's product over ours for technical superiority or other reasons, we could experience difficulty selling to that customer for a significant period of time.

Furthermore, we do not have long-term contracts with our customers. As a result, our agreements with our customers do not provide any assurance of future sales and we are exposed to competitive price pressure on each new order we attempt to obtain. Our failure to obtain new sales orders from new or existing customers would have a negative impact on our results of operations.

The timing of our orders, shipments, and revenue recognition may cause our quarterly operating results to fluctuate significantly.

We derive a substantial portion of our net sales in any fiscal period from the sale of a relatively small number of high-priced systems. As a result, the timing of recognition of revenue for a single transaction could have a material effect on our sales and operating results for a particular fiscal period. As is typical in our industry, orders, shipments, and customer acceptances often occur during the last few weeks of a quarter. As a result, delay of only a week or two can often shift the related booking or net sales into the next quarter, which could adversely affect our reported results for the prior quarter. Our quarterly results have fluctuated significantly in the past, and we expect this trend to continue. If our orders, shipments, net sales or operating results in a particular quarter do not meet expectations, our stock price may be adversely affected.

Changes in our product mix may cause our quarterly operating results to fluctuate significantly.

Certain of our products have historically had lower gross margins than other products. We expect this trend to continue. If a greater portion of our overall business in the future comes from products operating at lower gross margins, then our overall gross margins will decline. This could have an adverse effect on our stock price.

Our backlog is subject to customer cancellation or modification and such cancellation could result in decreased sales and increased provisions for excess and obsolete inventory.

Customer purchase orders are subject to cancellation or rescheduling by the customer, generally with limited or no penalties. Often, we have incurred expenses prior to such cancellation without adequate monetary compensation. During the year ended December 31, 2008, we experienced net backlog adjustments of approximately \$8.0 million, consisting of \$18.7 million for order cancellations, primarily from Asia Pacific MOCVD customers, and \$2.0 million of adjustments related to foreign currency translation, partially offset by \$12.7 million dollars of backlog acquired in the Mill Lane acquisition in the second quarter of 2008. With the current economic downturn, we may experience an increased occurrence of cancellations and/or reschedulings.

We record a provision for excess and obsolete inventory based on historical and future usage trends and other factors including the consideration of the amount of backlog we have on hand at any particular point in time. If our backlog is canceled or modified, our estimates of future product demand may prove to be inaccurate, in which case we may have understated the provision required for excess and obsolete inventory. In the future, if we determine that our inventory is overvalued, we will be required to recognize such costs in our financial statements at the time of such determination. Any such charges could be material to our results of operations and financial condition.

Our sales cycle is long and unpredictable.

Historically, we have experienced long and unpredictable sales cycles (the period between our initial contact with a potential customer and the time when we recognize revenue from that customer). Our sales cycle can range up to twelve months. The timing of an order often depends on the capital expenditure budget cycle of our customers, which is completely out of our control. In addition, the time it takes us to build a product to customer specifications (the "build cycle") typically ranges from one to six months, followed in certain cases by a period of customer acceptance during which the customer evaluates the performance of the system and may potentially reject the system. With the uncertainty and limited visibility related to the current economic downturn, many customers are reluctant to place orders for delivery in the future. Moreover, as a result of the build cycle and evaluation periods, the period between a customer's initial purchase decision and revenue recognition on an order often varies widely, and variations in length of this period can cause further fluctuations in our operating results. As a result of our lengthy sales cycle, we may incur significant research and development expenses and selling and general and administrative expenses before we generate the related revenues for these products. We may never generate the anticipated revenues if a customer cancels or changes plans. Variations in the length of our sales cycle could also cause our net sales and, therefore, our cash flow and net income to fluctuate widely from period to period.

The failure to successfully implement outsourcing activities and other operational initiatives could adversely affect results of operations.

To better align our costs with market conditions, increase the percentage of variable costs relative to total costs and to increase productivity and operational efficiency, we have outsourced, and plan to increase the outsourcing of, certain functions to third parties, including the manufacture of all or substantially all of the new MOCVD systems and certain data storage process equipment systems. We expect to increase our outsourced manufacturing as we introduce new products in these areas. Dependence on contract manufacturing and outsourcing may adversely affect our ability to bring products to market and damage our reputation. Although we attempt to select reputable providers, it is possible that one or more of these providers could fail to perform as we expect. In addition, the expanded role of third party providers has required and will continue to require us to implement changes to our existing operations and adopt new procedures and processes for retaining and managing these providers in order to realize operational efficiencies, assure quality, and protect our intellectual property. If we do not timely and effectively develop and implement our outsourcing strategy or if third party providers do not perform as anticipated, we may not realize gross margin or productivity improvements and we may experience operational difficulties, increased costs, manufacturing interruptions or delays, inefficiencies in the structure and/or operation of our supply chain, loss of intellectual property rights, quality issues, increased product time-to-market and/or inefficient allocation of human resources, any or all of which could materially and adversely affect our business, financial condition and results of operations.

Manufacturing interruptions or delays could affect our ability to meet customer demand, while the failure to estimate customer demand accurately could result in excess or obsolete inventory.

Our business depends on our ability to supply equipment, services and related products that meet the rapidly changing technical and volume requirements of our customers, which depends in part on the timely delivery of parts, components and subassemblies (collectively, parts) from suppliers. Some key parts may be subject to long lead-times and/or obtainable only from a single supplier or limited group of suppliers, and some sourcing or subassembly is provided by suppliers located in countries other than the United States. We may experience significant interruptions of our manufacturing operations, delays in our ability to deliver products or services, increased costs or customer order cancellations as a result of:

the failure or inability of suppliers to timely deliver quality parts;

volatility in the availability and cost of materials;

difficulties or delays in obtaining required import or export approvals;

information technology or infrastructure failures;

natural disasters (such as earthquakes, floods or storms); or

other causes (such as regional economic downturns, pandemics, political instability, terrorism, or acts of war) could result in delayed deliveries, manufacturing inefficiencies, increased costs or order cancellations.

In addition, our need to rapidly increase our business and manufacturing capacity to meet unanticipated increases in demand may exacerbate any interruptions in our manufacturing operations and supply chain and the associated effect on our working capital. Moreover, if actual demand for our products is different than expected, we may purchase more/fewer parts than necessary or incur costs for canceling, postponing or expediting delivery of parts. The volatility of demand for capital equipment increases capital, technical and other risks for companies in the supply chain. Any or all of these factors could materially and adversely affect our business, financial condition and results of operations.

We rely on a limited number of suppliers.

Failure of the suppliers of critical parts, components, and manufacturing equipment to deliver sufficient quantities in a timely and cost-effective manner could adversely affect our business. We generally do not have guaranteed supply or pricing arrangements with our suppliers. As a result, we risk increased cost of materials and difficulty in procuring the parts we need to fill customer orders. We currently use numerous suppliers; however, some key parts may be obtained only from a single supplier or a limited group of suppliers. Failure of any of these suppliers to perform in a timely or quality manner could negatively impact our revenues and results of operations. At present, we rely primarily on two suppliers for the majority of the manufacturing of certain MOCVD and data storage process equipment systems. The failure of these suppliers to fulfill their contractual obligations under our supply arrangement and our inability to make alternate arrangements or resume the manufacture of these systems ourselves could have a material adverse effect on our revenues, profitability, cash flows, and relationships with our customers.

Our inability to attract, retain, and motivate key employees could have a material adverse effect on our business.

Our success depends upon our ability to attract, retain, and motivate key employees, including those in executive, managerial, engineering, marketing, as well as highly skilled and qualified technical personnel and personnel to implement and monitor our financial and managerial controls and reporting systems. Attracting, retaining, and motivating qualified personnel may be difficult due to challenging

industry conditions, competition for such personnel by other technology companies, consolidations and relocations of operations and workforce reductions. Our inability to attract, retain, and motivate key personnel could have a material adverse effect on our business, financial condition or operating results.

We are exposed to the risks of operating a global business.

Approximately 63% of our 2008 net sales and 68% of our 2007 net sales were generated from sales outside the United States. We expect sales from non-U.S. markets to continue to represent a significant, and possibly increasing, portion of our sales in the future. Our non-U.S. sales and operations are subject to risks inherent in conducting business abroad, many of which are outside our control, including:

difficulties in managing a global enterprise, including staffing, managing distributors and representatives, and repatriation of earnings,

difficulties in obtaining U.S. export licenses in connection with sales of products to customers in certain geographic regions, including China and Asia Pacific, a particular disadvantage relative to our non-U.S. competitors who are not required to comply with U.S. export controls,

regional economic downturns and unstable political environments,

longer sales cycles and difficulty in collecting accounts receivable,

multiple, conflicting, and changing governmental laws and regulations, including import/export controls and other trade barriers, and

different customs and ways of doing business.

Many of these challenges are present in China, a large potential market for our products and an area that we anticipate will present a significant opportunity for growth. These conditions in China and other foreign economies may continue and recur again in the future, which could have a material adverse effect on our business. In addition, political instability, terrorism, acts of war or epidemics in regions where we operate may adversely affect our business and results of operations.

We are subject to foreign currency exchange risks.

We are exposed to foreign currency exchange rate risks that are inherent in our anticipated sales, sales commitments and assets and liabilities that are denominated in currencies other than the United States dollar. Although we attempt to mitigate our exposure to fluctuations in currency exchange rates, these hedging activities may not always be available or adequate to eliminate, or even mitigate, the impact of our exchange rate exposure. Failure to sufficiently hedge or otherwise manage foreign currency risks properly could materially and adversely affect our revenues and gross margins.

The enforcement and protection of our intellectual property rights may be expensive and could divert our valuable resources.

Our success depends in part upon the protection of our intellectual property rights. We rely primarily on patent, copyright, trademark and trade secret laws, as well as nondisclosure and confidentiality agreements and other methods, to protect our proprietary information, technologies and processes. We own various United States and international patents and have additional pending patent applications relating to certain of our products and technologies. The process of seeking patent protection is lengthy and expensive, and we cannot be certain that pending or future applications will actually result in issued patents or that issued patents will be of sufficient scope or strength to provide meaningful protection or commercial advantage. In addition, our intellectual property rights may be circumvented, invalidated or rendered obsolete by the rapid pace of technological change. Policing unauthorized use of our products and technologies is difficult and time consuming. Furthermore, the

laws of other countries may less effectively protect our proprietary rights than U.S. laws. Infringement of our rights by a third party could result in uncompensated lost market and revenue opportunities. We cannot be certain that the steps we have taken will prevent the misappropriation or unauthorized use of our proprietary information and technologies, particularly in foreign countries where the laws may not protect our proprietary intellectual property rights as fully or as readily as United States laws. Further, we cannot be certain that the laws and policies of any country, including the United States, with respect to intellectual property enforcement or licensing will not be changed in a way detrimental to the sale or use of our products or technology.

We may need to litigate to enforce our intellectual property rights, protect our trade secrets or determine the validity and scope of proprietary rights of others. As a result of any such litigation, we could lose our ability to enforce one or more patents or incur substantial unexpected operating costs. Any action we take to enforce our intellectual property rights could be costly and could absorb significant management time and attention, which, in turn, could negatively impact our operating results. In addition, failure to protect our trademark rights could impair our brand identity.

We may be subject to claims of intellectual property infringement by others.

From time to time we have received communications from other parties asserting the existence of patent or other rights which they believe cover certain of our products. We also periodically receive notice from customers who believe that we are required to indemnify them for damages they may incur related to infringement claims made against these customers by third parties. Our customary practice is to evaluate such assertions and to consider the available alternatives, including whether to seek a license, if appropriate. However, we cannot ensure that licenses can be obtained or, if obtained, will be on acceptable terms or that costly litigation or other administrative proceedings will not occur. If we are not able to resolve a claim, negotiate a settlement of the matter, obtain necessary licenses on commercially reasonable terms, and/or successfully prosecute or defend our position, our business, financial condition, and results of operations could be materially and adversely affected.

Our acquisition strategy subjects us to risks associated with evaluating and pursuing these opportunities and integrating these businesses.

We have considered numerous acquisition opportunities and completed several significant acquisitions in the past. We may consider acquisitions of, or investments in, other businesses in the future. Acquisitions involve numerous risks, many of which are unpredictable and beyond our control, including:

difficulties and increased costs in integrating the personnel, operations, technologies and products of acquired companies,

diversion of management's attention while evaluating, pursuing, and integrating the business to be acquired,

potential loss of key employees of acquired companies, especially if a relocation or change in responsibilities is involved,

difficulties in managing geographically dispersed operations in a cost-effective manner,

lack of synergy or inability to realize expected synergies,

increased amortization expense relating to intangible assets, and

the potential impairment and write-down of amounts capitalized as intangible assets and goodwill as part of the acquisition, as a result of technological advancements or worse-than-expected performance by the acquired company.

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Our inability to effectively manage these risks could materially and adversely affect our business, financial condition, and operating results.

In addition, if we issue equity securities to pay for an acquisition, the ownership percentage of our then-existing shareholders would be reduced and the value of the shares held by these shareholders could be diluted, which could adversely affect the price of our stock and convertible subordinated notes. If we use cash to pay for an acquisition, the payment could significantly reduce the cash that would be available to fund our operations or other purposes, including making payments on the convertible subordinated notes. There can be no assurance that financing for future acquisitions will be available on favorable terms or at all.

We are substantially leveraged, which could adversely affect our ability to adjust our business to respond to competitive pressures and to obtain sufficient funds to finance our future needs.

We have significant indebtedness. As of December 31, 2008, we had total convertible long-term debt of approximately \$105.6 million due in 2012. The degree to which we are leveraged could have important consequences, including but not limited to the following:

our ability to obtain additional financing in the future for working capital, capital expenditures, acquisitions, general corporate or other purposes may be limited;

our shareholders would be diluted if holders of all or a portion of our 4.125% subordinated convertible notes elect to convert their notes, up to a maximum aggregate of approximately 5.3 million shares of our common stock; and

we may be more vulnerable to economic downturns, less able to withstand competitive pressures and less flexible in responding to changing business and economic conditions.

Our ability to pay interest and principal on our debt securities, to satisfy our other debt obligations and to make planned expenditures will be dependent on our future operating performance, which could be affected by changes in economic conditions and other factors, some of which are beyond our control. A failure to comply with the covenants and other provisions of our debt instruments could result in events of default under such instruments, which could permit acceleration of the debt under such instruments and in some cases acceleration of debt under other instruments that contain cross-default or cross-acceleration provisions. If we are at any time unable to generate sufficient cash flow from operations to service our indebtedness, we may be required to attempt to renegotiate the terms of the instruments relating to the indebtedness, seek to refinance all or a portion of the indebtedness or obtain additional financing. During the past few years, the markets for equity and debt securities have fluctuated significantly, especially with respect to technology-related companies, and during some periods offerings of those securities have been extremely difficult to complete. As a result, in the future we may not be able to obtain the additional funds required to fund our operations, invest sufficiently in research and development, and repay or refinance our convertible subordinated notes on reasonable terms, or at all. Such a lack of funds could have a material adverse effect on our business, financial condition, and operating results.

Changes in accounting pronouncements or taxation rules or practices may adversely affect our financial results.

Changes in accounting pronouncements or taxation rules or practices can have a significant effect on our reported results. For example, under FASB Staff Position No. APB 14-1, *Accounting for Convertible Debt Instruments That May Be Settled in Cash upon Conversion (Including Partial Cash Settlement)*, we will record additional non-cash interest expense in each reporting period during which our subordinated convertible notes remain outstanding. We expect the adoption of FSP APB 14-1 to have a material effect on our consolidated financial position, results of operations, and earnings per

share. This additional interest expense will not require the use of cash. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations Application of Critical Accounting Policies" below. Other new accounting pronouncements or taxation rules and varying interpretations of accounting pronouncements or taxation practices have occurred and may occur in the future. New rules, changes to existing rules, if any, or the questioning of current practices may adversely affect our reported financial results or change the way we conduct our business.

The price of our common shares may be volatile and could decline significantly.

The stock market in general, and the market for technology stocks in particular, has recently experienced volatility that has often been unrelated to the operating performance of companies. If these market or industry-based fluctuations continue, the trading price of our common shares could decline significantly independent of our actual operating performance, and shareholders could lose all or a substantial part of their investment. The market price of our common shares could fluctuate significantly in response to several factors, including among others:

general stock market conditions and uncertainty, such as those occasioned by the global liquidity crisis, negative financial news, and the failure of several large financial institutions;

receipt of substantial orders or cancellations for our products;

actual or anticipated variations in our results of operations;

announcements of financial developments or technological innovations;

our failure to meet the performance estimates of investment research analysts;

changes in recommendations and/or financial estimates by investment research analysts.

strategic transactions, such as acquisitions, divestitures or spin-offs; and

the occurrence of major catastrophic events.

Significant price and value fluctuations have occurred with respect to the publicly traded securities of the Company and technology companies generally. The price of our common shares is likely to be volatile in the future. In the past, securities class action litigation often has been brought against a company following periods of volatility in the market price of its securities. If similar litigation were pursued against us, it could result in substantial costs and a diversion of management's attention and resources, which could materially adversely affect our results of operations, financial condition and liquidity.

We are subject to internal control evaluations and attestation requirements of Section 404 of the Sarbanes-Oxley Act.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, we must include in our Annual Report on Form 10-K a report of management on the effectiveness of our internal control over financial reporting. Ongoing compliance with this requirement is complex, costly and time-consuming. Although our assessment, testing, and evaluation resulted in our conclusion that, as of December 31, 2008, our internal controls over financial reporting were effective, we cannot predict the outcome of our testing in future periods. If our internal controls are ineffective in future periods, or if our management does not timely assess the adequacy of such internal controls, we could be subject to regulatory sanctions, the public's perception of our Company may decline, and our financial results or the market price of our shares could be adversely affected.

We are subject to risks of non-compliance with environmental and safety regulations.

We are subject to environmental and safety regulations in connection with our business operations, including but not limited to regulations related to the development, manufacture, and use of our products. Failure or inability to comply with existing or future environmental and safety regulations could result in significant remediation liabilities, the imposition of fines and/or the suspension or termination of development, manufacture, or use of certain of our products, each of which could have a material adverse effect on our business, financial condition, and results of operations.

We have significant operations in California and other locations which could be materially and adversely impacted, in the event of a natural disaster or other significant disruption.

Our Metrology segment designs and manufactures our atomic force microscopes and other products in Santa Barbara, California. Our operations in this and other locations could be subject to natural disasters or other significant disruptions, including earthquakes, fires, hurricanes, floods, water shortages, other extreme weather conditions, medical epidemics, acts of terrorism, power shortages and blackouts, telecommunications failures, and other natural and manmade disasters or disruptions. In the event of such a natural disaster or other disruption, we could experience disruptions or interruptions to our operations or the operations of our suppliers, distributors, resellers or customers; destruction of facilities; and/or loss of life, all of which could materially increase our costs and expenses and materially adversely affect our business, revenue and financial condition.

We have adopted certain measures that may have anti-takeover effects which may make an acquisition of our Company by another company more difficult.

We have adopted, and may in the future adopt, certain measures that may have the effect of delaying, deferring or preventing a takeover or other change in control of our Company that a holder of our common stock might not consider in its best interest. These measures include:

"blank check" preferred stock,

classified board of directors,

shareholder rights plan or "poison pill," and

certain certificate of incorporation and bylaws provisions.

Our board of directors has the authority to issue up to 500,000 shares of preferred stock and to fix the rights (including voting rights), preferences and privileges of these shares ("blank check" preferred). Such preferred stock may have rights, including economic rights, senior to our common stock. As a result, the issuance of the preferred stock could have a material adverse effect on the price of our common stock and could make it more difficult for a third party to acquire a majority of our outstanding common stock.

Our board of directors is divided into three classes with each class serving a staggered three-year term. The existence of a classified board will make it more difficult for our shareholders to change the composition (and therefore the policies) of our board of directors in a relatively short period of time.

We have adopted a shareholder rights plan, under which we have granted to our shareholders rights to purchase shares of junior participating preferred stock. This plan or "poison pill" could discourage a takeover that is not approved by our board of directors but which a shareholder might consider in its best interest, thereby adversely affecting our stock price.

We have adopted certain certificate of incorporation and bylaws provisions which may have anti-takeover effects. These include: (a) requiring certain actions to be taken at a meeting of shareholders rather than by written consent, (b) requiring a super-majority of shareholders to call a

special meeting of shareholders or to approve certain amendments to our bylaws, (c) limiting the maximum number of directors, and (d) providing that directors may be removed only for "cause." These measures and those described above may have the effect of delaying, deferring or preventing a takeover or other change in control of Veeco that a holder of our common stock might consider in its best interest.

In addition, we are subject to the provisions of Section 203 of the General Corporation Law of the State of Delaware, which prohibits a Delaware corporation from engaging in any business combination, including mergers and asset sales, with an interested stockholder (generally, a 15% or greater stockholder) for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. The operation of Section 203 may have anti-takeover effects, which could delay, defer or prevent a takeover attempt that a holder of our common stock might consider in its best interest.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our headquarters office and our principal manufacturing, research and development, and sales and service facilities, as well as the approximate size and the segments which utilize such facilities, are:

| Owned Facilities Location | Approximate Size (sq. ft.) | Mortgaged | Use |
|---------------------------|----------------------------|-----------|---|
| Plainview, NY | 80,000 | No | Data Storage Process Equipment and Corporate Headquarters |
| Santa Barbara, CA | 100,000 | No | Metrology |
| Somerset, NJ | 80,000 | No | LED & Solar Process Equipment |
| St. Paul, MN(1) | 125,000 | Yes | LED & Solar Process Equipment |
| Tucson, AZ(2) | 110,000 | No | Metrology |

| Leased Facilities Location | Approximate Size (sq. ft.) | Lease Expires | Use |
|----------------------------|----------------------------|----------------|--------------------------------|
| Camarillo, CA | 48,000 | 2009 | Data Storage Process Equipment |
| Camarillo, CA | 26,000 | 2012 | Data Storage Process Equipment |
| Camarillo, CA | 19,000 | 2010 | Metrology |
| Fort Collins, CO | 42,000 | 2009 | Data Storage Process Equipment |
| Fremont, CA | 14,000 | 2010 | Sales and Service |
| Lowell, MA | 28,000 | 2010 | LED & Solar Process Equipment |
| Lowell, MA | 12,000 | Month-to-month | LED & Solar Process Equipment |
| Ventura, CA(3) | 125,000 | 2009 | Held for sublease |
| Woodbury, NY(4) | 32,000 | 2011 | Held for sublease |

(1) Our LED & Solar Process Equipment segment utilizes approximately 95,000 square feet of this facility. The balance is available for expansion.

(2)

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Our Metrology segment utilizes approximately 75,000 square feet of this facility. The balance is available for expansion.

- (3) This facility is leased from the former owner of Manufacturing Technology, Inc. ("MTI"). We have subleased a portion of this building and are marketing the remainder of this facility for sublease.

(4)

We vacated our former Woodbury headquarters during the first quarter of 2008 and consolidated our operations into our Plainview, New York manufacturing facility. We are marketing this office space for sublease.

The St. Paul, Minnesota facility is subject to a mortgage, which at December 31, 2008, had an outstanding balance of \$3.3 million. We also lease small offices in Chadds Ford, Pennsylvania and Edina, Minnesota for sales and service. Our foreign subsidiaries lease space for use as sales and service centers in England, France, Germany, Netherlands, Japan, Korea, Malaysia, Singapore, Thailand, China and Taiwan. We believe our facilities are adequate to meet our current needs.

Item 3. Legal Proceedings

Environmental

We may, under certain circumstances, be obligated to pay up to \$250,000 in connection with the implementation of a comprehensive plan of environmental remediation at our Plainview, New York facility. We have been indemnified for any liabilities we may incur in excess of \$250,000 with respect to any such remediation. No comprehensive plan has been required to date. Even without consideration of such indemnification, we do not believe that any material loss or expense is probable in connection with any remediation plan that may be proposed.

We are aware that petroleum hydrocarbon contamination has been detected in the soil at the site of a facility formerly leased by us in Santa Barbara, California. We have been indemnified for any liabilities we may incur which arise from environmental contamination at the site. Even without consideration of such indemnification, we do not believe that any material loss or expense is probable in connection with any such liabilities.

The former owner of the land and building in which our Santa Barbara, California Metrology operations are located has disclosed that there are hazardous substances present in the ground under the building. Management believes that the comprehensive indemnification clause that is part of the purchase contract relating to the purchase of such land provides adequate protection against any environmental issues that may arise.

Non-Environmental

On September 17, 2003, we filed a lawsuit in the United States District Court for the Central District of California against Asylum Research Inc. ("Asylum"), a privately-held company founded by former Veeco employees. The lawsuit alleged that the manufacture, use, and sale of Asylum's MFP-3D AFM constituted willful infringement of five patents owned by us, as well as other claims. We claimed unspecified monetary damages and requested a permanent injunction to stop infringement. Asylum asserted that the patents we sued on are invalid and unenforceable, and filed a counterclaim for infringement of a patent licensed by Asylum, and payment of royalties it believes it was owed. In August 2008, we settled the litigation. In the settlement, Veeco and Asylum agreed to drop all pending claims against each other and agreed to a five year, worldwide cross license of each company's patents that were the subject of the dispute and a mutual covenant not to sue on patents either party has a right to assert. As part of the settlement, Asylum acknowledged the validity of the Veeco patents asserted in the case and made payment to us for license fees and will pay an ongoing royalty to us for the five-year term of the cross license. During the case, we capitalized the legal costs we incurred to defend our patents and are now amortizing these capitalized costs over the remaining lives of these patents. Payments received from Asylum for license fees and royalties have been and will continue to be netted against these capitalized defense costs upon receipt. We are not required to make any payments to Asylum under this settlement, including any royalties relating to the cross license.

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Three shareholder derivative lawsuits were filed against our directors and certain of our officers in March and April of 2005 in federal court in the Southern District of New York. The plaintiffs in the consolidated derivative action asserted that our directors and certain of our officers breached fiduciary duties in connection with the improper accounting transactions discovered at our TurboDisc business unit which led to the restatement in March 2005 of our financial statements for the quarterly periods and nine months ended September 30, 2004 and a securities class action lawsuit brought in February 2005 and settled in November 2007. On November 5, 2007, we entered into a Memorandum of Understanding to settle and fully resolve the consolidated shareholder derivative action for a payment of approximately \$0.5 million and our agreement to adopt certain changes to our corporate Governance Guidelines. The settlement was approved by the Court on March 28, 2008. Insurance proceeds covered the settlement amount and legal expenses related to the settlement. The settlement dismissed all pending claims against us and the other defendants with no admission or finding of wrongdoing by us or any of the other defendants, and we and the other defendants received a full release of all claims pending in the litigation.

We are involved in various other legal proceedings arising in the normal course of our business. We do not believe that the ultimate resolution of these matters will have a material adverse effect on our consolidated financial position, results of operations or cash flows.

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

None.

PART II

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

Our common stock is quoted on The NASDAQ National Market under the symbol "VECO." The 2008 and 2007 high and low closing bid prices by quarter are as follows:

| | 2008 | | 2007 | |
|----------------|----------|----------|----------|----------|
| | High | Low | High | Low |
| First Quarter | \$ 17.96 | \$ 12.39 | \$ 20.87 | \$ 18.68 |
| Second Quarter | 19.71 | 16.63 | 20.95 | 17.05 |
| Third Quarter | 18.11 | 14.42 | 22.09 | 15.50 |
| Fourth Quarter | 14.81 | 3.83 | 20.20 | 15.82 |

On February 26, 2009, the closing bid price for our common stock on the NASDAQ National Market was \$4.38. As of February 26, 2009, we had 386 shareholders of record.

In December 2001 and January 2002, we issued \$220.0 million of 4.125% convertible subordinated notes (the "Old Notes") in a private placement. During the first quarter of 2006, we repurchased \$20.0 million of these notes, reducing the amount outstanding from \$220.0 million to \$200.0 million. During the first quarter of 2007, we repurchased an additional \$56.0 million of these notes, reducing the amount outstanding from \$200.0 million to \$144.0 million. During the second quarter of 2007, we issued new convertible subordinated notes (the "New Notes") pursuant to privately negotiated exchange agreements with certain holders of the Old Notes to exchange \$118.8 million aggregate principal amount of the original notes for approximately \$117.8 million aggregate principal amount of New Notes. Following the exchange transactions, approximately \$25.2 million of Old Notes remained outstanding. The remaining Old Notes were convertible, at the option of the holder, at any time on or prior to maturity into shares of common stock at a conversion price of \$38.51 per share. We paid interest on these remaining Old Notes on June 21 and December 21 of each year and during the fourth quarter of 2008, we repaid the outstanding principal amount of the remaining \$25.2 million of Old Notes outstanding. The New Notes bear interest at 4.125% per annum and mature on April 15, 2012. These notes are convertible, at the option of the holder, at any time during the period beginning on January 15, 2012 through the close of business on the second day prior to April 15, 2012 and earlier, upon the occurrence of certain events, including our common stock trading at prices 130% over the conversion price for a specified period. Such notes are convertible at a price of \$27.23 per share. We pay interest on these notes on April 15 and October 15 of each year.

We have not paid dividends on our common stock. We intend to retain future earnings for the development of our business and, therefore, do not anticipate that the Board of Directors will declare or pay any dividends on the common stock in the foreseeable future. In addition, certain provisions of our credit facility limit our ability to pay dividends. The Board of Directors will determine future dividend policy based on our consolidated results of operations, financial condition, capital requirements and other circumstances.

Stock Performance Graph

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among Veeco Instruments Inc., The S&P Smallcap 600 Index,
The Philadelphia Semiconductor Index And A Peer Group

*
\$100 invested on 12/31/03 in stock or index-including reinvestment of dividends.
Fiscal year ending December 31.

**ASSUMES \$100 INVESTED ON DEC. 31, 2003
ASSUMES DIVIDENDS REINVESTED
FISCAL YEAR ENDING DEC. 31**

| | Cumulative Total Return as of December 31, | | | | | |
|---|--|--------|--------|--------|--------|--------|
| | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| Veeco Instruments Inc. | 100.0 | 74.82 | 61.54 | 66.51 | 59.30 | 22.51 |
| Philadelphia Semiconductor Index (SOXX) | 100.0 | 88.84 | 115.83 | 128.45 | 125.92 | 91.10 |
| Peer Group Index | 100.0 | 82.42 | 79.84 | 105.29 | 106.27 | 46.40 |
| S&P Smallcap 600 Index | 100.0 | 122.65 | 132.07 | 152.04 | 151.58 | 104.48 |

Information is presented assuming \$100 invested on December 31, 2003 and the reinvestment of dividends, if any. The Peer Group Index consists of the following companies: ASM International N.V., Axcelis Technologies Inc., FEI Company, FSI International Inc., Mattson Technology Inc., Rudolph Technologies Inc., Semitool Inc., Varian Semiconductor Equipment Associates Inc. and Zygo Corp.

Item 6. Selected Consolidated Financial Data

The financial data set forth below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and with our Consolidated Financial Statements and notes thereto included elsewhere in this Form 10-K.

| | Years ended December 31, | | | | |
|---|--------------------------|-------------|------------|------------|-------------|
| | 2008(1) | 2007(2) | 2006(3) | 2005(4) | 2004(5) |
| (In thousands, except per share data) | | | | | |
| Statement of Operations Data: | | | | | |
| Net sales | \$ 442,809 | \$ 402,475 | \$ 441,034 | \$ 410,190 | \$ 390,443 |
| Operating (loss) income | (70,558) | (12,061) | 22,456 | 11,066 | (11,558) |
| Net (loss) income | \$ (71,063) | \$ (17,359) | \$ 14,917 | \$ (897) | \$ (62,555) |
| Net (loss) income per common share: | | | | | |
| Net (loss) income per common share | \$ (2.27) | \$ (0.56) | \$ 0.49 | \$ (0.03) | \$ (2.11) |
| Diluted net (loss) income per common share | \$ (2.27) | \$ (0.56) | \$ 0.48 | \$ (0.03) | \$ (2.11) |
| Weighted average shares outstanding | 31,347 | 31,020 | 30,492 | 29,921 | 29,650 |
| Diluted weighted average shares outstanding | 31,347 | 31,020 | 31,059 | 29,921 | 29,650 |

| | Years ended December 31, | | | | |
|---|--------------------------|------------|------------|------------|------------|
| | 2008 | 2007 | 2006 | 2005 | 2004 |
| (In thousands) | | | | | |
| Balance Sheet Data: | | | | | |
| Cash and cash equivalents | \$ 103,799 | \$ 117,083 | \$ 147,046 | \$ 124,499 | \$ 100,276 |
| Working capital | 168,528 | 174,516 | 248,060 | 229,650 | 216,802 |
| Goodwill | 59,160 | 100,898 | 100,898 | 99,622 | 94,645 |
| Total assets | 429,541 | 529,334 | 589,600 | 567,860 | 576,913 |
| Long-term debt (including current installments) | 108,865 | 146,585 | 209,204 | 229,580 | 229,935 |
| Shareholders' equity | 214,687 | 273,677 | 281,751 | 248,587 | 252,352 |

- (1) Operating loss and net loss include a \$73.3 million asset impairment charge of which \$52.3 million was related to goodwill and \$21.0 million was related to other long-lived assets, a restructuring charge of \$10.6 million consisting of lease-related commitments, the mutually agreed-upon termination of the employment agreement with our former CEO and personnel severance costs, an inventory write-off of \$2.9 million included in cost of sales in Metrology and \$1.5 million in cost of sales related to the required purchase accounting adjustment to write up inventory to fair value in connection with the purchase of Mill Lane Engineering. Net loss also reflects a net gain from the early extinguishment of debt in the amount of \$5.0 million and the elimination of 80.1% of the net operating results of the Fluens Corporation ("Fluens") related to noncontrolling interest.
- (2) Operating loss and net loss include restructuring expenses of \$6.7 million, as well as charges of \$1.1 million and \$4.8 million associated with the write-off of property and equipment and inventory, respectively, related to product lines discontinued as part of management's cost reduction plan. Net income also reflects a net gain from the early extinguishment of debt in the amount of \$0.7 million and the elimination of 80.1% of the net operating results of Fluens related to noncontrolling interest.
- (3) Operating income and net income are net of a write-off of \$1.2 million of in-process research and development projects related to the Fluens acquisition. Net income also reflects a net gain from the early extinguishment of debt in the amount of \$0.3 million and the elimination of 80.1% of the net operating results of Fluens related to noncontrolling interest.

- (4) Operating income and net loss include restructuring expenses of \$1.2 million.
- (5) Operating loss and net loss include (a) restructuring costs of \$2.8 million, (b) costs related to the internal investigation of improper accounting transactions at our TurboDisc business unit of \$0.8 million, (c) asset impairment charges of \$0.8 million related to the consolidation of the Advanced Imaging, Inc. ("Aii") and MTI businesses, and (d) \$0.6 million related to the write-off of purchased in-process technology in connection with the MTI acquisition. Net loss also includes a charge of approximately \$54.0 million to establish a valuation allowance against substantially all of our domestic net deferred tax assets.

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

Executive Summary

We design and manufacture enabling solutions for customers in HB-LED, solar, data storage, semiconductor, scientific research and industrial markets. We have leading technology positions in our three reportable segments: LED & Solar Process Equipment, Data Storage Process Equipment, and Metrology.

In our LED & Solar segment, we design and manufacture MOCVD systems, MBE systems and sources, and other types of deposition systems such as web coaters, which we sell to manufacturers of HB-LEDs, solar panels and wireless telecommunications devices and to universities and scientific research centers.

In our Data Storage segment, we design and manufacture ion beam etch, ion beam deposition, diamond-like carbon, physical vapor deposition, and dicing and slicing products primarily used to create TFMHs that read and write data on hard drives.

In our Metrology segment, we design and manufacture AFMs, SPMs, stylus profilers, and optical interferometers used to provide critical surface measurements in research and production environments. This broad line of products is used in universities, research facilities and scientific centers worldwide. In production environments such as semiconductor, data storage and other industries, our metrology instruments enable customers to monitor their products throughout the manufacturing process to improve yields, reduce costs, and improve product quality.

During 2008, we continued our multi-quarter plan to improve profitability and reduce and contain spending. During 2008, we made progress against the initiatives that management set, continued our restructuring plan and executed activities with a focus on creating a more variable cost effective organization. These activities included downsizing and consolidating some locations, reducing our workforce, consultants and discretionary expenses and realigning our sales organization and engineering groups. In conjunction with these activities, we recognized a restructuring charge of approximately \$10.6 million, an inventory write-off of \$2.9 million in cost of sales related to legacy semiconductor products and \$1.5 million in cost of sales related to the required purchase accounting adjustment to write up inventory to fair value in connection with the purchase of Mill Lane during the year ended December 31, 2008. In addition, due to a weakened and deteriorating business environment, we incurred an asset impairment charge of \$73.3 million consisting of \$52.3 million related to goodwill and \$21.0 million related to other long-lived assets.

Summary of Results for 2008

Despite the extremely challenging market environment that necessitated a significant impairment charge, in 2008 we reported higher revenues, positive impact from its cost containment initiatives, and a significantly improved balance sheet as a result of the cash flow from operations and the repayment of debt. We made progress to refocus the business and drive R&D investments to higher-growth end market opportunities.

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Revenue increased 10% to \$442.8 million from \$402.5 million in 2007. We experienced 43% and 10% revenue increases, respectively, in our LED & Solar and Data Storage businesses, but a 15% decline in Metrology revenues;

Orders were \$424.4 million in 2008 compared to \$451.6 million in the prior year;

Our gross margin increased to 40% from 39% in 2007. While gross margins were up in both LED & Solar and Data Storage, they were down in Metrology due primarily to the significant decline in sales volume;

Our selling, general and administrative expenses increased by \$1.9 million, or 2.1% from the prior year. Selling general and administrative expenses were 21.0% of net sales in 2008, compared with 22.6% of net sales in the prior year;

Our research and development expenses decreased \$0.8 million from the prior year. As a percentage of net sales, research and development expense decreased to 13.6% from 15.2% in the prior year;

Net loss for 2008 was (\$71.1) million compared to a net loss of (\$17.4) million in 2007. Our results include the impact of \$88.3 million and \$12.6 million in asset impairment, restructuring and other charges in 2008 and 2007, respectively;

Net loss per share was (\$2.27) compared to (\$0.56) in 2007; and

We used cash of \$13.3 million during 2008, principally due to the repurchase and repayment of long-term debt of \$32.7 million and capital expenditures of \$12.8 million, partially offset by cash provided by operating activities of \$44.3 million.

Business Highlights of 2008 included:

Increased growth and profitability in our "green" equipment business, or LED & Solar segment, which included securing new customers for MOCVD, realigning R&D spending and increasing our revenues from solar products;

Realigning our Data Storage Process Equipment segment, including consolidation of overhead and locations, increased outsourcing and remaining aligned with customers on key technology requirements;

Strengthening the organization and increasing effectiveness across the Company: better product development, improved manufacturing efficiency and supply chain management, and strengthening the sales channel.

Outlook/Opportunities

At the end of 2008, the global economy entered a period of what appears to be an unprecedented slowdown, which is impacting all of our end markets. We expect 2009 to be a very difficult year for us as we continue to experience weak new order conditions and customers foregoing capacity and technology investments. As evidence of this decline, our trailing six month order rate decreased 27% compared to the first six months of 2008. In addition, customers have delayed approximately \$30.0 million of shipments originally scheduled for the first quarter of 2009 until later in the year. We are forecasting a very weak start to 2009, with first quarter revenues between \$60 million and \$70 million, well below prior quarter levels.

In light of the declining business conditions, in the fall of 2008 we initiated a significant restructuring program. The details of this program were formally announced in February 2009.

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Key areas of focus for our restructuring activities include:

Increased variable cost percentage for better performance through the cycles;

Simplified organizational structure and lower company breakeven point;

An improved balance sheet;

Excellent connectivity and relationships with customers; and

Alignment to customers' technology roadmaps by driving R&D spend toward high growth markets and leveraging Veeco's market positions in core technologies.

Specifically, our restructuring program includes:

26% reduction in force to be completed by the end of 2009 (from 1,318 at September 30, 2008); 70% of these actions will be completed by the end of the first quarter;

Centralizing supply chain and operational organizations;

Decreasing the number of manufacturing sites through increased outsourcing for many of our product lines;

Decreasing the number of individual business units;

Changing compensation structure for our senior management and Board of Directors; and

Decreasing discretionary spending in all categories.

We have moved swiftly to restructure the Company to lower its quarterly breakeven level to \$80 million from over \$100 million in the third quarter of 2008. We anticipate that these restructuring actions will result in annualized savings of over \$36 million: approximately \$20 million reduction in manufacturing labor and overhead and service costs which are included in cost of goods sold, and \$16 million reduction in operating spending.

While we are dramatically changing the organization and cutting overall spending in 2009, we are also continuing to invest in R&D for high-growth opportunities, with particular emphasis on LED & Solar and new applications for Metrology instruments. Despite the current pause in capacity spending, we anticipate strong multi-year LED industry growth tied to further adoption of applications such as TVs and laptops. Our solar growth strategy is based on building an integrated equipment offering for CIGS thin film solar cells, emerging as the next generation low cost, high efficiency solar technology. We also remain aligned with our key data storage customers' on their technology roadmaps in order to secure future growth opportunities.

Results of Operations**Years Ended December 31, 2008 and 2007**

The following table shows our Consolidated Statements of Operations, percentages of sales, and comparisons between 2008 and 2007 (dollars in 000s):

| | Year ended December 31, | | | | Dollar and Percentage Change | |
|--|-------------------------|---------|-------------|--------|------------------------------|---------|
| | 2008 | | 2007 | | Year to Year | |
| Net sales | \$442,809 | 100.0% | \$402,475 | 100.0% | \$ 40,334 | 10.0% |
| Cost of sales | 266,215 | 60.1 | 244,964 | 60.9 | 21,251 | 8.7 |
| Gross profit | 176,594 | 39.9 | 157,511 | 39.1 | 19,083 | 12.1 |
| Operating expenses: | | | | | | |
| Selling, general, and administrative expense | 92,838 | 21.0 | 90,972 | 22.6 | 1,866 | 2.1 |
| Research and development expense | 60,353 | 13.6 | 61,174 | 15.2 | (821) | (1.3) |
| Amortization expense | 10,745 | 2.4 | 10,250 | 2.5 | 495 | 4.8 |
| Restructuring expense | 10,562 | 2.4 | 6,726 | 1.7 | 3,836 | 57.0 |
| Asset impairment charge | 73,322 | 16.6 | 1,068 | 0.3 | 72,254 | 6,765.4 |
| Other income, net | (668) | (0.2) | (618) | (0.2) | (50) | 8.1 |
| Total operating expenses | 247,152 | 55.8 | 169,572 | 42.1 | 77,580 | 45.8 |
| Operating loss | (70,558) | (15.9) | (12,061) | (3.0) | (58,497) | 485.0 |
| Interest expense | 6,400 | 1.4 | 6,976 | 1.7 | (576) | (8.3) |
| Interest income | (2,588) | (0.6) | (3,963) | (1.0) | 1,375 | (34.7) |
| Gain on extinguishment of debt | (4,969) | (1.1) | (738) | (0.1) | (4,231) | 573.3 |
| Loss before income taxes and noncontrolling interest | (69,401) | (15.7) | (14,336) | (3.6) | (55,065) | 384.1 |
| Income tax provision | 1,892 | 0.4 | 3,651 | 0.9 | (1,759) | (48.2) |
| Noncontrolling interest | (230) | (0.1) | (628) | (0.2) | 398 | (63.4) |
| Net loss | \$ (71,063) | (16.0)% | \$ (17,359) | (4.3)% | \$(53,704) | 309.4% |

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Net Sales and Orders

Net sales of \$442.8 million for the year ended December 31, 2008, were up 10.0%, compared to 2007. The following is an analysis of sales and orders by segment and by region (dollars in 000s):

| | Sales | | | | Orders | | | | Book to Bill Ratio | |
|---|-------------------------|-------------------|------------------------------|--------------|-------------------------|-------------------|------------------------------|---------------|--------------------|-------------|
| | Year ended December 31, | | Dollar and Percentage Change | | Year ended December 31, | | Dollar and Percentage Change | | | |
| | 2008 | 2007 | Year to Year | | 2008 | 2007 | Year to Year | | 2008 | 2007 |
| Segment Analysis | | | | | | | | | | |
| LED & Solar Process Equipment | \$ 165,812 | \$ 115,863 | \$ 49,949 | 43.1% | \$ 160,162 | \$ 163,970 | \$ (3,808) | (2.3)% | 0.97 | 1.42 |
| Data Storage Process Equipment | 149,123 | 136,169 | 12,954 | 9.5 | 138,653 | 141,663 | (3,010) | (2.1) | 0.93 | 1.04 |
| Metrology | 127,874 | 150,443 | (22,569) | (15.0) | 125,622 | 145,939 | (20,317) | (13.9) | 0.98 | 0.97 |
| Total | \$ 442,809 | \$ 402,475 | \$ 40,334 | 10.0% | \$ 424,437 | \$ 451,572 | \$ (27,135) | (6.0)% | 0.96 | 1.12 |
| Regional Analysis | | | | | | | | | | |
| Americas | \$ 165,926 | \$ 130,500 | \$ 35,426 | 27.1% | \$ 145,082 | \$ 150,748 | \$ (5,666) | (3.8)% | 0.87 | 1.16 |
| Europe, Middle East and Africa ("EMEA") | 94,142 | 77,985 | 16,157 | 20.7 | 86,518 | 106,178 | (19,660) | (18.5) | 0.92 | 1.36 |
| Japan | 38,453 | 55,815 | (17,362) | (31.1) | 31,593 | 48,764 | (17,171) | (35.2) | 0.82 | 0.87 |
| Asia Pacific | 144,288 | 138,175 | 6,113 | 4.4 | 161,244 | 145,882 | 15,362 | 10.5 | 1.12 | 1.06 |
| Total | \$ 442,809 | \$ 402,475 | \$ 40,334 | 10.0% | \$ 424,437 | \$ 451,572 | \$ (27,135) | (6.0)% | 0.96 | 1.12 |

By segment, LED & Solar Process Equipment sales increased 43.1% due to an increase in end user demand from expanding applications for HB-LEDs, strong customer acceptance of Veeco's newest generation systems, successful introduction of new thermal deposition sources for CIGS solar cells, and \$12.9 million in sales from the solar equipment product line, which was acquired in the second quarter of 2008 as a result of the Mill Lane acquisition. Additionally, Data Storage Process Equipment sales were up 9.5% primarily as a result of customers' technology and capacity requirements. Partially offsetting these increases was a decline in Metrology sales of 15.0%, primarily due to the slowdown in the semiconductor and research and industrial markets. LED & Solar Process Equipment sales represented 37.4% of total sales for the year ended December 31, 2008, up from 28.8% in the prior year period. Data Storage Process Equipment sales accounted for 33.7% of net sales, down slightly from 33.8% in the prior year period. Metrology sales accounted for 28.9% of net sales for the year ended December 31, 2008, down from 37.4% in the prior year period. By region, net sales increased by 27.1%, 20.7% and 4.4% in the Americas, EMEA and Asia Pacific, respectively, while sales in Japan declined 31.1%. We believe that there will continue to be period-to-period variations in the geographic distribution of sales.

Orders in 2008 decreased 6.0% compared to 2007, primarily attributable to a 13.9% decline in Metrology orders due to a decrease in orders for AFM products resulting from lower demand in the semiconductor and research and industrial markets. The 2.3% decrease in orders for LED & Solar Process Equipment was due primarily to the decline in MOCVD orders as the HB-LED industry absorbs the significant number of new MOCVD systems purchased in the past two years. Data Storage Process Equipment orders declined 2.1% due to the reduction in customers' future capital equipment requirements. In addition, the global credit crisis has caused our customers to delay or forego capacity and technology purchases for our products.

Our book-to-bill ratio for 2008, which is calculated by dividing orders received in a given time period by revenue recognized in the same time period, was 0.96 to 1. Our backlog as of December 31, 2008, was \$147.2 million, compared to \$173.5 million as of December 31, 2007. During the year ended December 31, 2008, we experienced net backlog adjustments of approximately \$8.0 million, consisting of \$18.7 million for order cancellations, primarily from Asia Pacific MOCVD customers, and \$2.0 million of adjustments related to foreign currency translation, partially offset by \$12.7 million

dollars of backlog acquired in the Mill Lane acquisition in the second quarter of 2008. For certain sales arrangements we require a deposit for a portion of the sales price before shipment. As of December 31, 2008 we have deposits and advanced billings of \$18.0 million. Due to changing business conditions and weak capital equipment spending by customers in our businesses, we may continue to experience cancellations and/or rescheduling of orders, particularly as the economic downturn has become more significant and wide ranging as credit availability has tightened and financial conditions have deteriorated. We expect 2009 to be a very difficult year for the Company as we continue to experience weak new order conditions and customers foregoing capacity and technology investments. In addition, customers have delayed approximately \$30.0 million of shipments originally scheduled for the first quarter of 2009 until later in the year.

Gross Profit

Gross profit for 2008 was 39.9%, compared to 39.1% in 2007. Strong performance in both our LED & Solar and Data Storage Process Equipment businesses were due primarily to a 25% increase in sales volume and favorable product mix. LED & Solar Process Equipment gross margins increased from 37.8% in the prior year to 38.5%, primarily due to a 43.1% increase in sales volume as well as favorable pricing on new MOCVD products, despite a reduction in gross profit of \$1.5 million during 2008 related to the acquisition of Mill Lane. This reduction was the result of purchase accounting, which requires adjustments to capitalize inventory at fair value. This impact is reflected in cost of sales during 2008. Data Storage Process Equipment gross margins increased from 34.7% in the prior year to 40.5% mainly due to increased sales volume, as well as favorable pricing and product mix compared to the prior year. In 2007, Data Storage Process Equipment gross margin was also negatively impacted by a charge of \$4.8 million for the write-off of inventory associated with certain discontinued data storage product lines. Metrology gross margins declined from 44.1% in the prior year to 41.0%, principally due to 15.0% lower sales volume, partially offset by a reduction in spending associated with cost savings initiatives. Metrology gross margins were also negatively impacted by a charge to cost of sales of \$2.9 million during 2008 for the write off of inventory associated with legacy semiconductor products.

Operating Expenses

Selling, general and administrative expenses increased by \$1.9 million, or 2.1%, from the prior year primarily due to an increase in bonus and profit sharing, an increase in equity compensation, salaries and fringe expense, and an increase in spending associated with the acquisition of Mill Lane in the second quarter of 2008. This was partially offset by reductions in consulting, travel and entertainment and insurance and facilities costs associated with our continuing cost savings initiatives. Selling, general and administrative expenses were 21.0% of net sales in 2008, compared with 22.6% of net sales in the prior year.

Research and development expense decreased \$0.8 million from the prior year, primarily due to a more focused approach to data storage and metrology product development, offset by an increase in product improvement efforts and new product development in our LED & Solar segment. As a percentage of net sales, research and development expense decreased to 13.6% from 15.2% in the prior year.

Amortization expense was \$10.7 million in 2008, compared to \$10.2 million in 2007. The increase was primarily due to additional amortization associated with intangible assets acquired as part of the acquisition of Mill Lane in the second quarter of 2008, partially offset by certain technology-based intangible assets becoming fully amortized during 2007.

Restructuring expense of \$10.6 million for the year ended December 31, 2008, consisted of personnel severance costs of \$6.5 million, including \$3.7 million related to the mutually agreed-upon termination of our former CEO's employment agreement and \$2.8 million associated with the

reduction of approximately 74 employees, or 6%, of the Company's workforce. Additionally, we incurred a \$3.7 million charge during 2008 for lease-related costs associated with the consolidation of our Corporate headquarters into our Plainview, New York facility, and \$0.4 million associated with the termination of a leased facility in Santa Barbara, California, that we vacated during the third quarter. Restructuring expense of \$6.7 million for the year ended December 31, 2007, was principally a result of personnel severance costs of \$4.9 million associated with a cost reduction plan initiated by management during 2007 and \$1.8 million of costs for purchase commitments associated with certain discontinued product lines.

During 2008, the Company recorded a \$73.3 million asset impairment charge, of which \$73.0 million was recorded during the fourth quarter and \$0.3 million was recorded during the first quarter. The fourth quarter charge consisted of \$52.3 million related to goodwill, \$19.6 million related to intangible assets and \$1.1 million in property, plant and equipment, as more fully described below. The first quarter charge consisted of \$0.3 million associated with property and equipment abandoned as part of the consolidation of our Corporate headquarters into our Plainview facility. Asset impairment charges of \$1.1 million incurred during 2007 were attributable to the write-off of certain property and equipment associated with the discontinued product lines.

In accordance with SFAS No. 142, *Goodwill and Other Intangible Assets*, we conducted our annual impairment test of goodwill and indefinite-lived intangible assets during the fourth quarters of 2008 and 2007, using October 1st as our measurement date, and utilizing a discounted future cash flow approach as described in the Application of Critical Accounting Policies section that follows. This was consistent with the approach used in previous years. Based upon the results of such assessments, we determined that no goodwill and indefinite-lived intangible asset impairment existed in any of our reporting units, as of October 1, 2008 and 2007, respectively.

During the fourth quarter of 2008, the economic downturn became more significant and wide ranging as credit availability tightened and overall business and economic conditions deteriorated. It became apparent that the revenue, profitability, growth and other assumptions we used in its fair value determination at October 1, 2008, required revisions. Additionally, we realized a significant decline in our market capitalization which resulted in the carrying value of our net assets exceeding our market capitalization. Given these factors we were required to perform an interim goodwill impairment assessment as of December 31, 2008.

In performing the impairment assessment as of December 31, 2008, we updated our financial forecast and growth rate assumptions based upon current market conditions and determined that the carrying amounts of our Data Storage Process Equipment and AFM reporting units were in excess of their respective estimated fair values. As such, we were required to allocate the estimated fair value to all assets and liabilities in these two reporting units and determined there was no implied value related to goodwill or indefinite-lived intangible assets. We recorded an asset impairment charge of \$52.3 million in the fourth quarter of 2008 relating to goodwill, which consisted of \$30.4 million in our Data Storage Process Equipment reporting unit and \$21.9 million in our AFM reporting unit, and recorded a charge of \$5.0 million in our Data Storage Process Equipment reporting unit relating to indefinite-lived intangible assets, pertaining to trademarks.

In accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, we performed an analysis as of December 31, 2008 of our definite-lived intangible and long-lived assets due to impairment indicators noted during the fourth quarter of 2008, pertaining to its Data Storage Process Equipment and AFM reporting units. Indications of impairment included deteriorating economic conditions, reduced orders, reduced revenue projections, losses in its AFM reporting unit and a significant reduction in our market capitalization. No impairment indicators were present in the other two reporting units. For the purposes of recognition and measurement of an impairment loss, a long-lived asset or assets are grouped with other assets and liabilities at the lowest level for which

identifiable cash flows are largely independent of cash flows of other assets and liabilities. For the Data Storage Process Equipment reporting unit the long-lived assets were grouped at one level below the reporting unit and at the reporting unit level for AFM. The recoverability of long-lived asset groups was measured by a comparison of the carrying amount of the assets to the estimated undiscounted future cash flows expected to be generated by such assets. Developing the estimate of the undiscounted future cash flows requires significant judgment and projection of future financial performance, including projection of future revenue and expenses, working capital requirements and the time period in which the assets will be utilized. We used the economic life of the primary asset in the long-lived asset group to determine the forecast period of the future cash flows. For the AFM reporting unit, we analyzed long-lived assets with a carrying value of \$27.8 million (consisting of \$16.6 million of property, plant and equipment and \$11.2 million of intangible assets principally patent defense and capitalized software costs) at December 31, 2008 for impairment and determined that no impairment existed. For the Data Storage Process Equipment reporting unit, we analyzed long-lived assets with a carrying value of \$38.6 million at December 31, 2008 for impairment and determined that no impairment existed for one of the identifiable long-lived asset groups with a carrying value of \$12.8 million (consisting principally of property, plant and equipment). Since the carrying amount of long-lived assets within the other identifiable asset group exceeded the estimated future cash flows of such assets, an impairment existed. This long-lived asset group consists of intangible assets of \$24.0 million (primarily purchased technology) and \$1.8 million of property, plant and equipment pertaining to its mechanical processing product line of Saws and Lappers. The amount of the impairment is determined by comparing the fair value of the long-lived asset group to the carrying value. As permitted under SFAS 144 we determined the fair value of our long-lived asset groups utilizing a discounted cash flow approach applying a risk free interest rate. The carrying value of the long-lived assets exceeded the fair value by \$15.7, million which was recorded as an impairment charge and was allocated on a pro rata basis to the long-lived assets with \$14.6 million allocated to intangible assets and \$1.1 million allocated to property, plant and equipment. We currently expect to recover the remaining carrying value of the asset group of \$10.1 million by cash flows generated by the use of the assets over their remaining useful life.

Interest Expense and Interest Income

Interest expense for 2008 decreased by \$0.6 million from the prior year, primarily due to the repurchase of our convertible subordinated notes. Interest income decreased by \$1.4 million due principally to the lower interest rate yields on cash balances invested during 2008 compared to the prior year.

Gain on Extinguishment of Debt

During the fourth quarter of 2008, we repurchased \$12.2 million in aggregate principal amount of our convertible subordinated notes for \$7.2 million in cash, of which \$7.1 million related to principal and \$0.1 million related to accrued interest, reducing the amount outstanding from \$117.8 million to \$105.6 million. As a result of these repurchases, we recorded a net gain from the extinguishment of debt of approximately \$5.0 million.

During 2007, we repurchased \$56.0 million of our convertible subordinated notes, reducing the amount outstanding from \$200.0 million to \$144.0 million. The repurchase amount was \$55.1 million in cash, of which \$54.8 million related to principal and \$0.3 million related to accrued interest. As a result of this repurchase, we recorded a net gain from the extinguishment of debt of approximately \$0.7 million.

Income Taxes

The income tax provision for the year ended December 31, 2008 was \$1.9 million compared to \$3.7 million in the prior year. The 2008 provision for income taxes included \$1.5 million relating to our

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foreign operations, which continue to be profitable, and \$0.4 million relating to our domestic operations. Due to significant domestic net operating loss carry forwards, which are fully reserved by a valuation allowance, our domestic operations are not expected to incur significant income taxes for the foreseeable future. The 2007 provision for income taxes included \$2.2 million relating to our foreign operations and \$1.5 million relating to our domestic operations.

Noncontrolling Interest

Noncontrolling interest was a credit to income of \$0.2 million for the year ended December 31, 2008 and a credit of \$0.6 million in the prior year. As we are the primary beneficiary of Fluens, a variable interest entity, we are required to consolidate Fluens and eliminate the portion of its results attributable to noncontrolling interests. As a result, we eliminate from our net loss 80.1% of Fluens' operating losses.

Years Ended December 31, 2007 and 2006

The following table shows our Consolidated Statements of Operations, percentages of sales, and comparisons between 2007 and 2006 (dollars in 000s):

| | Year ended December 31, | | | | Dollar and Percentage Change Year to Year | |
|---|----------------------------|--------|-----------|--------|--|----------|
| | 2007 | | 2006 | | | |
| Net sales | \$402,475 | 100.0% | \$441,034 | 100.0% | \$(38,559) | (8.7)% |
| Cost of sales | 244,964 | 60.9 | 246,910 | 56.0 | (1,946) | (0.8) |
| Gross profit | 157,511 | 39.1 | 194,124 | 44.0 | (36,613) | (18.9) |
| Operating expenses: | | | | | | |
| Selling, general, and administrative expense | 90,972 | 22.6 | 93,110 | 21.1 | (2,138) | (2.3) |
| Research and development expense | 61,174 | 15.2 | 61,925 | 14.0 | (751) | (1.2) |
| Amortization expense | 10,250 | 2.5 | 16,045 | 3.6 | (5,795) | (36.1) |
| Restructuring expense | 6,726 | 1.7 | 0.0 | 0.0 | 6,726 | 100.0 |
| Asset impairment charge | 1,068 | 0.3 | 0.0 | 0.0 | 1,068 | 100.0 |
| Write-off of purchased in-process technology | 0.0 | 0.0 | 1,160 | 0.3 | (1,160) | (100.0) |
| Other income, net | (618) | (0.2) | (572) | (0.1) | 46 | 8.0 |
| Total operating expenses | 169,572 | 42.1 | 171,668 | 38.9 | (2,096) | (1.2) |
| Operating (loss) income | (12,061) | (3.0) | 22,456 | 5.1 | (34,517) | 153.7 |
| Interest expense | 6,976 | 1.7 | 9,194 | 2.1 | (2,218) | (24.1) |
| Interest income | (3,963) | (1.0) | (4,926) | (1.1) | (963) | (19.5) |
| Gain on extinguishment of debt | (738) | (0.1) | (330) | (0.1) | 408 | 123.6 |
| (Loss) income before income taxes and noncontrolling interest | (14,336) | (3.6) | 18,518 | 4.2 | (32,854) | (177.4) |
| Income tax provision | 3,651 | 0.9 | 4,959 | 1.1 | (1,308) | (26.4) |
| Noncontrolling interest | (628) | (0.2) | (1,358) | (0.3) | (730) | (53.8) |
| Net (loss) income | \$ (17,359) | (4.3)% | \$ 14,917 | 3.4% | \$(32,276) | (216.4)% |

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Net Sales and Orders

Net sales of \$402.5 million for the year ended December 31, 2007 were down 8.7%, compared to 2006. The following is an analysis of sales and orders by segment and by region (dollars in 000s):

| | Sales | | | | Orders | | | | Book to Bill Ratio | |
|--------------------------------|-------------------------|------------------|------------------------------|---------------|-------------------------|------------------|------------------------------|---------------|--------------------|-------------|
| | Year ended December 31, | | Dollar and Percentage Change | | Year ended December 31, | | Dollar and Percentage Change | | | |
| | 2007 | 2006 | Year to Year | | 2007 | 2006 | Year to Year | | 2007 | 2006 |
| Segment Analysis | | | | | | | | | | |
| LED & Solar Process Equipment | \$ 115,863 | \$ 94,165 | \$ 21,697 | 23.0% | \$ 163,970 | \$ 120,123 | \$ 43,847 | 36.5% | 1.42 | 1.28 |
| Data Storage Process Equipment | 136,169 | 174,713 | (38,543) | (22.1) | 141,663 | 194,602 | (52,939) | (27.2) | 1.04 | 1.11 |
| Metrology | 150,443 | 172,156 | (21,713) | (12.6) | 145,939 | 179,077 | (33,138) | (18.5) | 0.97 | 1.04 |
| Total | \$402,475 | \$441,034 | \$(38,559) | (8.7)% | \$451,572 | \$493,802 | \$(42,230) | (8.6)% | 1.12 | 1.12 |
| Regional Analysis | | | | | | | | | | |
| Americas | \$ 130,500 | \$ 151,686 | \$(21,186) | (14.0)% | \$ 150,748 | \$ 169,536 | \$(18,788) | (11.1)% | 1.16 | 1.12 |
| EMEA | 77,985 | 69,310 | 8,675 | 12.5 | 106,178 | 65,988 | 40,190 | 60.9 | 1.36 | 0.95 |
| Japan | 55,815 | 57,241 | (1,426) | (2.5) | 48,764 | 60,523 | (11,759) | (19.4) | 0.87 | 1.06 |
| Asia Pacific | 138,175 | 162,797 | (24,622) | (15.1) | 145,882 | 197,755 | (51,873) | (26.2) | 1.06 | 1.21 |
| Total | \$402,475 | \$441,034 | \$(38,559) | (8.7)% | \$451,572 | \$493,802 | \$(42,230) | (8.6)% | 1.12 | 1.12 |

By segment, Data Storage Process Equipment sales were down 22.1%, primarily due to a decrease in sales to customers in the data storage industry due to reduced requirements for capacity purchases in 2007. Metrology sales decreased 12.6%, primarily due to decreased purchases of automated AFM products in the semiconductor market and optical metrology products in the data storage market. Partially offsetting these declines was an increase of 23.0% in sales in the LED & Solar Process Equipment segment, resulting primarily from the increase in end user demand due to expanding applications for HB-LEDs. LED & Solar Process Equipment sales represented 28.8% of net sales for the year ended December 31, 2007, up from 21.4% in the prior year period. Data Storage Process Equipment sales accounted for 33.8% of net sales, down from 39.6% in the prior year period. Metrology sales accounted for 37.4% of net sales for the year ended December 31, 2007, down from 39.0% in the prior year period. By region, net sales increased by 12.5% in EMEA, while sales in Asia-Pacific and the Americas declined 15.1% and 14.0%, respectively. We believe that there will continue to be period-to-period variations in the geographic distribution of sales.

Orders in 2007 decreased 8.6% compared to 2006. The decrease was caused by a 27.2% decrease in Data Storage Process Equipment orders due primarily from a reduction in customer demand in the data storage industry, as well as an 18.5% decrease in Metrology orders due to a decrease in orders for automated AFM products, principally to semiconductor customers and a decrease in orders for optical metrology products, principally to data storage customers. These declines were offset by an increase of 36.5% in LED & Solar Process Equipment orders due to an increase in purchases in the HB-LED and solar markets.

Our book-to-bill ratio for 2007, which is calculated by dividing orders received in a given time period by revenue recognized in the same time period, was 1.12, which is consistent with the comparable 2006 period. Our backlog as of December 31, 2007 was \$173.5 million, compared to \$140.8 million as of December 31, 2006. During the year ended December 31, 2007, we experienced backlog adjustments of approximately \$16.4 million, driven by order cancellations from data storage customers for products that we discontinued. Due to changing business conditions and customer requirements, we may continue to experience cancellations and/or rescheduling of orders.

Gross Profit

Gross profit for 2007 was 39.1%, compared to 44.0% in the comparable prior year period. Data Storage Process Equipment gross margin decreased from 44.1% in the prior year to 34.7% primarily due to a 22.1% decline in sales volume, as well as an unfavorable product mix. Gross margin was also negatively impacted by a charge of \$4.8 million for the write-off of inventory associated with certain discontinued data storage product lines. Metrology gross margins decreased to 44.1% from 51.5% in 2006, principally due to lower sales volume of automated AFM and optical metrology products and less favorable product mix in AFM products sold to scientific and research customers. However, these decreases were offset by a significant improvement in gross margin for LED & Solar Process Equipment products due to an increase in sales volume, as well as favorable product mix and pricing.

Operating Expenses

Selling, general and administrative expenses decreased by \$2.1 million, primarily attributable to a decrease in bonus, profit sharing, and commission expenses related to the reduction in domestic sales, as well as reduced legal fees. The decrease was offset by an increase in non-cash compensation expense related to stock options and restricted shares, and an increase in executive stay and sign-on bonuses. Selling, general and administrative expenses were 22.6% of sales in 2007, compared with 21.1% of sales in the prior year period.

Research and development expense decreased \$0.8 million from the comparable prior year period, primarily due to prior year product development efforts for Data Storage Process Equipment products that were introduced during 2007. As a percentage of sales, research and development expense increased to 15.2% from 14.0% in the prior year period.

Amortization expense decreased by \$5.8 million from the prior year due to certain technology-based intangibles becoming fully amortized during 2007.

Restructuring expense of \$6.7 million for the year ended December 31, 2007 was principally a result of personnel severance costs of \$4.9 million associated with a cost reduction plan initiated by management during 2007. Additionally, we incurred \$1.8 million of costs for purchase commitments associated with certain discontinued product lines. No such restructuring expenses were recorded in the prior year period.

Asset impairment charges of \$1.1 million incurred during 2007 were attributable to the write-off of certain property and equipment associated with the discontinued product lines. No such asset impairment charges were recorded in the prior year period.

During the third quarter of 2006, we finalized the purchase accounting for our acquisition of 19.9% of the stock of Fluens, and determined that Fluens is a variable interest entity and that we are its primary beneficiary. Approximately 31% of Fluens is owned by a Senior Vice President of our Company. As such, we have consolidated the results of Fluens' operations from the acquisition date, and have attributed the 80.1% portion that is not owned by Veeco to noncontrolling interest in our consolidated financial statements. As part of this acquisition accounting, we recorded \$1.2 million of in-process technology, which was written off during the third quarter of 2006. No such costs were recorded during 2007.

Interest Expense and Interest Income

Interest expense for 2007 decreased by \$2.2 million from the prior year period, due to the early extinguishment of \$56.0 million of our convertible subordinated notes during 2007 (see below). Interest income decreased by \$1.0 million due to lower average cash balances invested during 2007.

Gain on Extinguishment of Debt

During 2007, we repurchased \$56.0 million of our convertible subordinated notes, reducing the amount outstanding from \$200.0 million to \$144.0 million. The repurchase amount was \$55.1 million in cash, of which \$54.8 million related to principal and \$0.3 million related to accrued interest. As a result of the repurchase, we recorded a net gain from the extinguishment of debt in the amount of \$0.7 million. In the comparable 2006 period, we repurchased \$20.0 million of our convertible subordinated notes reducing the amount outstanding from \$220.0 million to \$200.0 million. As a result of these repurchases, we recorded a net gain from the extinguishment of debt in the amount of \$0.3 million.

Income Taxes

The income tax provision for the year ended December 31, 2007 was \$3.7 million compared to \$5.0 million in the prior year. The 2007 provision for income taxes included \$2.2 million relating to our foreign operations, which continue to be profitable, and \$1.5 million relating to our domestic operations. Due to significant domestic net operating loss carry forwards, which are fully reserved by a valuation allowance, our domestic operations are not expected to incur significant income taxes for the foreseeable future. The 2006 provision for income taxes included \$3.6 million relating to our foreign operations and \$1.4 million relating to our domestic operations.

Noncontrolling Interest

Noncontrolling interest was a credit to income of \$0.6 million for the year ended December 31, 2007 and a credit of \$1.4 million in the comparable prior year period. As we are the primary beneficiary of Fluens, a variable interest entity, we are required to consolidate Fluens and eliminate the portion of its results attributable to noncontrolling interests. As a result, we eliminate from our net income 80.1% of Fluens' operating losses. The credit in the prior comparable period includes the elimination of 80.1% of the write-off of in-process technology recorded in the third quarter of 2006.

Liquidity and Capital Resources

Historically, our principal capital requirements have included the funding of acquisitions, capital expenditures and the repayment of debt. We traditionally have generated cash from operations and debt and stock issuances. Our ability to generate sufficient cash flows from operations is dependent on the continued demand for our products and services.

Cash as of December 31, 2008 was \$103.8 million. This amount represents a decrease of \$13.3 million from December 31, 2007. A summary of the current period cash flow activity is as follows (in thousands):

| | Year ended December 31, | |
|---|----------------------------|-------------|
| | 2008 | 2007 |
| Net loss | \$ (71,063) | \$ (17,359) |
| Net cash provided by operating activities | \$ 44,264 | \$ 39,185 |
| Net cash used in investing activities | (23,684) | (8,780) |
| Net cash used in financing activities | (32,997) | (59,484) |
| Effect of exchange rates on cash and cash equivalents | (867) | (884) |
| Net change in cash and cash equivalents | (13,284) | (29,963) |
| Cash and cash equivalents at beginning of period | 117,083 | 147,046 |
| Cash and cash equivalents at end of period | \$ 103,799 | \$ 117,083 |

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Cash provided by operations during the year ended December 31, 2008 was \$44.3 million compared to \$39.2 million during the year ended December 31, 2007. The \$44.3 million provided by operations included adjustments to the \$71.1 million net loss for non-cash items, which primarily consisted of a non-cash asset impairment charge of \$73.3 million, depreciation and amortization of \$25.1 million, non-cash stock-based compensation expense of \$10.5 million, and a non-cash inventory write-off of \$2.9 million, partially offset by a \$5.0 million net gain on early extinguishment of long-term debt. Net cash provided by operations was favorably impacted by a net \$7.3 million increase from changes in operating assets and liabilities, which included a decrease in accounts receivable of \$20.1 million due to a reduction in sales and an improvement in days sales outstanding during the fourth quarter of 2008 as compared to the fourth quarter of 2007. We currently expect to incur charges of between \$5.0 million and \$6.0 million relating to restructuring activities during the first quarter of 2009 for personnel severance, retention bonuses and lease commitments, which will require the use of cash. Payments on the \$5.2 million restructuring reserve as of December 31, 2008 will be made over the next twelve to eighteen months, principally for personnel severance and lease-related obligations. Cash provided by operations during the year ended December 31, 2007, was \$39.2 million. This included adjustments to the \$17.4 million net loss for non-cash items which included depreciation and amortization of \$25.0 million, non-cash stock-based compensation expense of \$5.6 million and \$5.9 million of non-cash charges associated with restructuring and asset impairment, partially offset by a net \$21.2 million increase from changes in operating assets and liabilities. Due to the current global economic crisis, we cannot assure timely receipt of accounts receivable, due to cash constraints on our customers. As of December 31, 2008, we are not aware of any specific uncollectible accounts resulting from the current economic uncertainties and believe that related reserves are adequate to cover the uncertainties that exist.

Cash used in investing activities of \$23.7 million for the year ended December 31, 2008, resulted primarily from capital expenditures of \$12.8 million and the acquisition of Mill Lane for \$11.0 million. Cash used in investing activities of \$8.8 million for the year ended December 31, 2007, resulted primarily from capital expenditures of \$9.1 million, partially offset by other items. In 2009, we currently expect to invest approximately \$9.5 million in total capital expenditures primarily related to lab tools for high-growth opportunities, with particular emphasis on LED & Solar and new applications for Metrology instruments.

Cash used in financing activities of \$33.0 million in 2008 primarily consisted of cash used to pay the remaining outstanding convertible subordinated "Old Notes" (as defined below) for \$25.2 million in cash and to repurchase \$12.2 million in aggregate principal amount of our convertible subordinated "New Notes" (as defined below) for \$7.2 million in cash. In addition, restricted stock tax withholdings of \$1.0 million required the use of cash, partially offset by \$0.7 million of proceeds from stock issuances. Cash used in financing activities of \$59.5 million in 2007 primarily consisted of cash used in the repurchase of \$56.0 million of our outstanding convertible subordinated notes for \$55.1 million in cash, as discussed below, as well as a balloon payment of \$5.2 million made to satisfy the mortgage on our Santa Barbara, California facility. In addition, there were payments of debt issuance costs of \$1.6 million associated with our New Notes and a revolving credit facility we entered into in August 2007 and amended in February 2009 (discussed below). This was partially offset by \$3.2 million of proceeds from common stock issuances resulting from the exercise of employee stock options and the purchase of shares under our Employee Stock Purchase Plan.

On December 21, 2001, we issued \$200.0 million of unsecured 4.125% convertible subordinated notes due December 2008 ("Old Notes"), and on January 3, 2002, we issued an additional \$20.0 million of Old Notes pursuant to the exercise of an over-allotment option. The Old Notes were convertible, at the option of the holder, at any time on or prior to maturity, into shares of common stock at a conversion price of \$38.51 per share. We paid interest on the Old Notes on June 21 and December 21 of each year.

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During 2006, we repurchased \$20.0 million of Old Notes, reducing the amount outstanding from \$220.0 million to \$200.0 million. As a result of the repurchase, we recorded a net gain from the early extinguishment of debt in the amount of \$0.3 million in 2006. During 2007, we repurchased an additional \$56.0 million of Old Notes, reducing the amount of Old Notes outstanding from \$200.0 million to \$144.0 million. As a result of these repurchases, we recorded a net gain from the extinguishment of debt of \$0.7 million in 2007.

During the second quarter of 2007, we issued new convertible subordinated notes (the "New Notes") pursuant to privately negotiated exchange agreements with certain holders of the Old Notes. The New Notes bear interest at 4.125% per annum and mature on April 15, 2012. Under these agreements, such holders agreed to exchange \$118.8 million aggregate principal amount of Old Notes for approximately \$117.8 million aggregate principal amount of New Notes. Following the exchange transactions, approximately \$25.2 million of Old Notes remained outstanding. A gross gain of approximately \$1.0 million was recorded on the exchange transactions offset by the write-off of approximately \$1.0 million of unamortized deferred financing costs associated with the Old Notes.

The New Notes are initially convertible into 36.7277 shares of common stock per \$1,000 principal amount of New Notes (equivalent to a conversion price of \$27.23 per share or a premium of 38% over the closing market price for our common stock on April 16, 2007). Holders may convert the New Notes at any time during the period beginning on January 15, 2012 through the close of business on the second day prior to April 15, 2012 and earlier upon the occurrence of certain events including our common stock trading at prices 130% over the conversion price for a specified period. We pay interest on these notes on April 15 and October 15 of each year. The New Notes are unsecured and are effectively subordinated to all of our senior and secured indebtedness and to all indebtedness and other liabilities of our subsidiaries.

During the fourth quarter of 2008, we paid off the remaining \$25.2 million of Old Notes outstanding. In addition, we repurchased \$12.2 million in aggregate principal amount of our New Notes for \$7.2 million in cash, of which \$7.1 million related to principal and \$0.1 million related to accrued interest, reducing the amount outstanding from \$117.8 million to \$105.6 million. As a result of these repurchases, we recorded a net gain from the extinguishment of debt of approximately \$5.0 million.

In February 2009, we entered into an amendment to our existing credit agreement with HSBC Bank USA, National Association ("HSBC"), as administrative agent, and the lenders named therein (as amended, the "Credit Agreement"). As part of the amendment, we reduced the amount of the revolving credit facility, modified certain existing covenants and added certain new covenants. In addition, the commitment fees and interest rate were increased. As amended, the Credit Agreement provides for revolving credit borrowings of up to \$30.0 million. The annual interest rate under the Credit Agreement is a floating rate equal to the prime rate of the agent bank plus 2.0%. A LIBOR-based interest rate option is also provided. Borrowings may be used for general corporate purposes, including working capital requirements. The Credit Agreement contains certain restrictive covenants which include the maintenance of minimum cash balances and limitations with respect to incurrence of indebtedness, the payment of dividends, long-term leases, investments, mergers, acquisitions, consolidations and sales of assets. In addition, under the Credit Agreement, we are required to satisfy certain financial tests, including minimum profitability levels. As of the effective date of the amendment, we were in compliance with all covenants. Substantially all of our assets and those of our material domestic subsidiaries, other than real estate, have been pledged to secure our obligations under the Credit Agreement. The revolving credit facility under the Credit Agreement expires on March 31, 2012. In the first quarter of 2009, we will recognize an expense of \$0.2 million representing the amount of deferred financing fees equal to the portion of the revolving credit facility which was terminated in connection with the amendment. As of December 31, 2008 and 2007, there were no borrowings outstanding under the Credit Agreement and letters of credit outstanding were approximately \$0.4 million. Interest expense associated with the Credit Agreement recorded during 2008 and 2007 was approximately \$0.3 million and \$0.2 million, respectively.

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At December 31, 2008, our contractual cash obligations and commitments are as follows (in thousands):

| Contractual Cash Obligations and Commitments | Total | Payments due by period | | | |
|--|------------|------------------------|-----------|------------|----------------------|
| | | Less than 1 year | 1-3 years | 3-5 years | More than 5 years |
| Long-term debt(1) | \$ 108,865 | \$ 196 | \$ 441 | \$ 106,090 | \$ 2,138 |
| Interest on debt(1) | 16,162 | 4,608 | 9,167 | 1,833 | 554 |
| Operating leases(2) | 9,370 | 5,149 | 3,578 | 558 | 85 |
| Letters of credit and bank guarantees(3) | 669 | 669 | | | |
| Purchase commitments(4) | 27,724 | 27,724 | | | |
| Earn-out payments(5) | 9,600 | 9,600 | | | |
| | \$ 172,390 | \$ 47,946 | \$ 13,186 | \$ 108,481 | \$ 2,777 |

- (1) Long-term debt obligations consist of repayment of our convertible subordinated notes and related interest, as well as mortgage and interest payments for our St. Paul, MN facility.
- (2) We account for our office leases as operating leases, in accordance with SFAS No. 13, *Accounting for Leases*, with expiration dates ranging from 2009 through 2012. There are future minimum annual rental payments required under the leases. Leasehold improvements made at the beginning of or during a lease are amortized over the shorter of the remaining lease term or the estimated useful lives of the assets.
- (3) Issued by our lender on our behalf as needed. \$0.4 million of letters of credit can be drawn against our revolving credit agreement and \$0.3 million of bank guarantees can be drawn against lines of credit in our foreign subsidiaries.
- (4) Purchase commitments are primarily for inventory used in manufacturing our products. It has been our practice not to enter into purchase commitments extending beyond one year.
- (5) During 2008, we acquired Mill Lane for \$11.0 million, net of cash acquired, plus potential future earn-out payments of up to \$19.0 million, contingent upon the future achievement of certain operating performance criteria. As of December 31, 2008, we have accrued \$9.6 million in earn-out payments earned through the end of the fourth quarter of 2008. Payment for these earn-outs will be made in the first quarter of 2009. We believe we will be able to meet our obligation to pay these earn-out amounts to Mill Lane from the sources referred to above. The Company is potentially liable for additional earn-out payments of up to \$9.4 million which could be earned in 2009 and would be payable in January 2010. It is not possible to estimate the amount, if any, that may be due to the former owners of Mill Lane.

We believe that existing cash balances together with cash generated from operations and amounts available under our credit agreement will be sufficient to meet our projected working capital and other cash flow requirements for the next twelve months, as well as our contractual obligations, detailed in the above table. We believe we will be able to meet our obligation to repay the \$105.6 million subordinated notes that mature on April 15, 2012 through a combination of conversion of the notes outstanding, refinancing, cash generated from operations, and other means.

In 2006, we invested \$0.5 million to purchase 19.9% of the common stock of Fluens. Approximately 31% of Fluens is owned by one of our Senior Vice Presidents. Veeco and Fluens have jointly developed a next-generation process for high-rate deposition of aluminum oxide for data storage applications. If this development is successful and upon the satisfaction of certain additional conditions by May 2009, we will be obligated to purchase the balance of the outstanding stock of Fluens for \$3.5 million plus an earn-out payment to Fluens' other stockholders based on future performance. In

addition, until May 2009 Veeco may elect to waive these conditions and purchase the remaining 80.1% of outstanding stock of Fluens on the same terms.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements that have, or are reasonably likely to have, a current or future material effect on our financial condition, changes in financial condition, revenue or expenses, results of operations, liquidity, capital expenditures or capital resources.

Application of Critical Accounting Policies

General: Our discussion and analysis of our financial condition and results of operations are based upon our Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses. Management continually monitors and evaluates its estimates and judgments, including those related to bad debts, inventories, intangible and other long-lived assets, income taxes, warranty obligations, restructuring costs, and contingent liabilities, including potential litigation. Management bases its estimates and judgments on historical experience and on various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We consider certain accounting policies related to revenue recognition, the valuation of inventories, the impairment of goodwill and indefinite-lived intangible assets, the impairment of long-lived assets, warranty costs, the accounting for income taxes, and share-based compensation to be critical policies due to the estimation processes involved in each.

Revenue Recognition: We recognize revenue based on guidance provided in Securities and Exchange Commission Staff Accounting Bulletin No. 104, *Revenue Recognition*. Our revenue transactions include sales of products under multiple-element arrangements. Revenue under these arrangements is allocated to each element based upon its estimated fair market value, in accordance with the provisions of Emerging Issues Task Force ("EITF") 00-21, *Revenue Arrangements with Multiple Deliverables*.

We consider a broad array of facts and circumstances when evaluating each of our sales arrangements in determining when to recognize revenue, including specific terms of the purchase order, contractual obligations to the customer, the complexity of the customer's post delivery acceptance provisions, customer creditworthiness and the installation process. Revenue is recognized when persuasive evidence of an arrangement exists, the sales price is fixed or determinable, collectibility is reasonably assured and no uncertainties exist regarding customer acceptance. For transactions on which we recognize systems revenue, either at the time of shipment or delivery, our contractual arrangements with customers do not contain provisions for right of return or forfeiture, refund or other purchase price concessions. Sales arrangements are reviewed on a case-by-case basis; however, our products generally fall into one of two categories; either instruments or systems, for which we have established revenue recognition protocols as described below.

Instruments Standard products produced according to our published specifications, principally metrology instruments sold typically to universities, research facilities and scientific centers and in general industrial applications where installation is inconsequential or perfunctory and no substantive customer acceptance provisions exist, revenue is recognized when title and risk of loss pass to the customer, either at time of shipment or delivery. Acceptance of the product by the customer is based upon meeting standard published specifications. Customer acceptance provisions include initial setup at the customer site, performance of functional test procedures and calibration testing of the basic features and functionality of the product. These provisions are a replication of the testing performed in

our facilities prior to shipment. The skills and equipment required to complete installation of such instruments are not specialized and are readily available in the market and are often performed by distributors or representative organizations.

Systems Process equipment systems and certain metrology systems, which are sold to manufacturers in the LED, solar, data storage and semiconductor industries and are used in manufacturing facilities and commercial production environments typically include process acceptance criteria based upon Veeco and/or customer specifications. We are generally required to install these products and demonstrate compliance with acceptance tests at the customer's facility. Generally, based upon the terms of the sales arrangement, these products are sold with a retention (typically 10% to 20% of the sales contract value) which is payable by the customer when installation and field acceptance is completed. Such installations are not considered complex and are not deemed essential to the functionality of the equipment because they do not involve significant changes to the features or capabilities of the equipment or involve building complex interfaces or connections. Installation normally represents only 2% - 4% of the fair value of the sales contract. Sales arrangements for these systems are accounted for in accordance with EITF 00-21, as the Company bifurcates transactions into separate units of accounting or elements based on objective evidence of fair value. The two elements are the system and installation of the system. The amount of revenue allocated to each element is based upon its relative fair value. The price charged when the system or installation service is sold separately generally determines fair value. The value of the installation service is based upon the fair value of the service performed, including labor, which is based upon the estimated time to complete the installation at hourly rates, and material components. We recognize revenue for the system or delivered element since the delivered item has value to the customer on a standalone basis, there is objective and reliable evidence of the fair value of the undelivered item (i.e., the installation service) and delivery or performance of the undelivered item is considered probable and substantially in our control, based on our historical experience. The value of the undelivered element is the greater of the fair value of the installation or the portion of the sales price that will not be received until the installation is completed (i.e., the retention amount). System revenue is generally recognized upon shipment or delivery provided title and risk of loss has passed to the customer. Revenue from installation services is recognized at the time acceptance is received from the customer. If the arrangement does not meet all the above criteria, the entire amount of the sales arrangement is deferred until the criteria have been met or all elements have been delivered to the customer or been completed.

For new products, new applications of existing products, or for products with substantive customer acceptance provisions where performance cannot be fully assessed prior to meeting customer specifications at the customer site, revenue is recognized upon completion of installation and receipt of final customer acceptance. Since title to goods generally passes to the customer upon shipment or delivery and 80% to 90% of the contract amount becomes payable at that time, inventory is relieved and accounts receivable is recognized for the amount billed at the time of shipment. The profit on the amount billed for these transactions is deferred and recognized as deferred profit in the accompanying Consolidated Balance Sheets.

In Japan, generally where our contractual terms with customers specify risk of loss and title transfers upon customer acceptance, revenue is recognized and the customer is billed upon receipt of written customer acceptance.

Revenue related to maintenance and service contracts is recognized ratably over the applicable contract term. Component and spare part revenue is recognized at the time of shipment or delivery in accordance with the terms of the applicable sales arrangement.

Inventory Valuation: Inventories are stated at the lower of cost (principally first-in, first-out method) or market. Management evaluates the need to record adjustments for impairment of inventory on a quarterly basis. Our policy is to assess the valuation of all inventories, including raw materials,

work-in-process, finished goods, and spare parts and other service inventory. Obsolete inventory or inventory in excess of management's estimated usage for the next 12 month's requirements is written-down to its estimated market value, if less than its cost. Inherent in the estimates of market value are management's estimates related to our future manufacturing schedules, customer demand, technological and/or market obsolescence, possible alternative uses, and ultimate realization of excess inventory.

Goodwill and Indefinite-Lived Intangible Asset Impairment: The Company accounts for goodwill and intangible assets with indefinite useful lives in accordance with SFAS No. 142, *Goodwill and Other Intangible Assets*, which states that goodwill and intangible assets with indefinite useful lives should not be amortized, but instead tested for impairment at least annually at the reporting unit level. Our policy is to perform this annual impairment test in the fourth quarter of each fiscal year or more frequently if impairment indicators arise. Impairment indicators include, among other conditions, cash flow deficits, a historical or anticipated decline in revenue or operating profit, adverse legal or regulatory developments, and a material decrease in the fair value of some or all of the assets.

Pursuant to SFAS 142 we are required to determine if it is appropriate to use the operating segment as defined under SFAS 131 as the reporting unit, or one level below the operating segment, depending on whether certain criteria are met. We have identified four reporting units that are required to be reviewed for impairment. The reporting units are Data Storage Process Equipment, LED & Solar Process Equipment, AFM and Optical Metrology. AFM and Optical Metrology comprise the Metrology operating segment. In identifying the reporting units management considered the economic characteristics of operating segments including the products and services provided, production processes, types or classes of customer and product distribution.

We perform this impairment test by first comparing the fair value of our reporting units to their respective carrying amount. When determining the estimated fair value of a reporting unit, we utilize a discounted future cash flow approach since reported quoted market prices are not available for our reporting units. Developing the estimate of the discounted future cash flow requires significant judgment and projections of future financial performance. The key assumptions used in developing the discounted future cash flows are the projection of future revenues and expenses, working capital requirements, residual growth rates and the weighted average cost of capital. In developing our financial projections, we consider historical data, current internal estimates and market growth trends. Changes to any of these assumptions could materially change the fair value of the reporting unit. We reconcile the aggregate fair value of our reporting units to the Company's adjusted market capitalization as a supporting calculation. The adjusted market capitalization is calculated by multiplying the average share price of our common stock for the last ten trading days prior to the measurement date by the number of outstanding common shares and adding a control premium.

If the carrying value of the reporting units exceed the fair value we would then compare the implied fair value of our goodwill to the carrying amount in order to determine the amount of the impairment, if any.

Definite-Lived Intangible and Long-Lived Asset Impairment: Long-lived assets, such as property, plant, and equipment, and intangible assets with definite useful lives, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Impairment indicators include, among other conditions, cash flow deficits, a historical or anticipated decline in revenue or operating profit, adverse legal or regulatory developments, and a material decrease in the fair value of some or all of the assets. Assets are grouped at the lowest level for which there are identifiable cash flows that are largely independent of the cash flows generated by other asset groups. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to the estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future cash flows, an impairment

charge is recognized by the amount by which the carrying amount of the asset exceeds the fair value of the asset.

Warranty Costs: We estimate the costs that may be incurred under the warranty we provide and record a liability in the amount of such costs at the time the related revenue is recognized. Estimated warranty costs are determined by analyzing specific product and historical configuration statistics and regional warranty support costs. Our warranty obligation is affected by product failure rates, material usage, and labor costs incurred in correcting product failures during the warranty period. Unforeseen component failures or exceptional component performance can also result in changes to warranty costs. If actual warranty costs differ substantially from our estimates, revisions to the estimated warranty liability would be required.

Income Taxes: As part of the process of preparing our Consolidated Financial Statements, we are required to estimate our income taxes in each of the jurisdictions in which we operate. This process involves estimating the actual current tax expense, together with assessing temporary differences resulting from differing treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which are included within our Consolidated Balance Sheets. The carrying value of our deferred tax assets is adjusted by a valuation allowance to recognize the extent to which the future tax benefits will be recognized on a more likely than not basis. Our net deferred tax assets consist primarily of net operating loss and tax credit carry forwards, and timing differences between the book and tax treatment of inventory, acquired intangible assets and other asset valuations. Realization of these net deferred tax assets is dependent upon our ability to generate future taxable income.

We record valuation allowances in order to reduce our deferred tax assets to the amount expected to be realized. In assessing the adequacy of recorded valuation allowances, we consider a variety of factors, including the scheduled reversal of deferred tax liabilities, future taxable income, and prudent and feasible tax planning strategies. Under SFAS No. 109, factors such as current and previous operating losses are given significantly greater weight than the outlook for future profitability in determining the deferred tax asset carrying value.

At December 31, 2008, we had a valuation allowance of approximately \$82.9 million against substantially all of our domestic net deferred tax assets, which consist of net operating loss and tax credit carry forwards, as well as temporary deductible differences. If we are able to realize part or all of the domestic deferred tax assets in future periods, we will reduce our provision for income taxes with a release of the valuation allowance in an amount that corresponds with the income tax liability generated.

Financial Accounting Standards Board ("FASB") Interpretation No. 48, *Accounting for Uncertainty in Income Taxes, an interpretation of FASB Statement 109* ("FIN 48") addresses the determination of how tax benefits claimed or expected to be claimed on a tax return should be recorded in the financial statements. Under FIN 48, we must recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such uncertain tax positions are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate resolution. We had approximately \$1.0 million of unrecognized tax benefits at December 31, 2008, which predominantly relate to positions taken on our foreign tax returns and all of which represent the amount of unrecognized tax benefits that, if recognized, would favorably impact the effective income tax rate in future periods. At December 31, 2007, the reserve for unrecognized tax benefits was \$1.9 million relating to foreign unrecognized tax benefits.

Share-Based Compensation: Share-based compensation cost is measured at the grant date, based on the fair value of the award, and is recognized as expense over the employee requisite service period.

In order to determine the fair value of stock options on the date of grant, we apply the Black-Scholes option-pricing model. Inherent in the model are assumptions related to risk-free interest rate, dividend yield, expected stock-price volatility, and option life.

The risk-free rate assumed in valuing the options is based on the U.S. Treasury yield curve in effect at the time of grant for the expected term of the option. The dividend yield assumption is based on the Company's historical and future expectation of dividend payouts. While the risk-free interest rate and dividend yield are less subjective assumptions, typically based on factual data derived from public sources, the expected stock-price volatility and option life assumptions require a level of judgment which make them critical accounting estimates.

We use an expected stock-price volatility assumption that is a combination of both historical volatility, calculated based on the daily closing prices of our common stock over a period equal to the expected term of the option and implied volatility, utilizing market data of actively traded options on our common stock, which are obtained from public data sources. We believe that the historical volatility of the price of our common stock over the expected term of the option is a strong indicator of the expected future volatility and that implied volatility takes into consideration market expectations of how future volatility will differ from historical volatility. Accordingly, we believe a combination of both historical and implied volatility provides the best estimate of the future volatility of the market price of our common stock.

The expected term, representing the period of time that options granted are expected to be outstanding, is estimated using a lattice-based model incorporating historical post vest exercise and employee termination behavior.

We estimate forfeitures using its historical experience, which is adjusted over the requisite service period based on the extent to which actual forfeitures differ, or are expected to differ, from such estimates. Because of the significant amount of judgment used in these calculations, it is reasonably likely that circumstances may cause the estimate to change.

With regard to the weighted-average option life assumption, we consider the exercise behavior of past grants and model the pattern of aggregate exercises.

Recent Accounting Pronouncements: In September 2006, the FASB issued Statement of Financial Accounting Standards No. 157, "Fair Value Measurements" ("SFAS No. 157"). SFAS No. 157 defines fair value, establishes a framework for measuring fair value, and enhances fair value measurement disclosure. In February 2008, the FASB issued FSP 157-2, "Effective Date of FASB Statement No. 157" ("FSP 157-2"). FSP 157-2 delays the effective date of SFAS No. 157 for all non-financial assets and non-financial liabilities, except for items that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually), until the beginning of the first quarter of fiscal 2009. The measurement and disclosure requirements related to financial assets and financial liabilities were effective for us beginning in the first quarter of fiscal 2008. The adoption of SFAS No. 157 for financial assets and financial liabilities did not have a significant impact on our consolidated financial statements. We are currently evaluating the impact that SFAS No. 157 will have on our consolidated financial statements when it is applied to non-financial assets and non-financial liabilities beginning in the first quarter of 2009, including periodic fair value measurements for goodwill, long-lived assets and restructuring liabilities. The resulting fair values calculated under SFAS No. 157 after adoption may be different from the fair values that would have been calculated under previous guidance.

In December 2007, the FASB issued Statement of Financial Accounting Standards No. 141 (revised 2007), *Business Combinations* ("SFAS 141(R)") and Statement of Financial Accounting Standards No. 160, *Noncontrolling Interests in Consolidated Financial Statements - an Amendment of ARB No. 51* ("SFAS 160"). Under SFAS 141(R), an acquiring entity will be required to recognize all the assets acquired and liabilities assumed in a transaction at the acquisition date at fair value with limited exceptions. SFAS 141(R) also changes the accounting treatment for certain other items that relate to

business combinations. SFAS 141(R) applies prospectively to business combinations for which the acquisition date is on or after January 1, 2009. The purpose of SFAS 160 is to improve the relevance, comparability, and transparency of the financial information that a reporting entity provides in its consolidated financial statements. The most significant provisions of this statement result in changes to the presentation of noncontrolling interests in the consolidated financial statements. SFAS 160 is effective for fiscal years beginning after December 15, 2008. The adoption of this statement will impact the manner in which we present noncontrolling interests, but will not impact our consolidated financial position or results of operations.

In March 2008, the FASB issued Statement of Financial Accounting Standards No. 161, *Disclosures about Derivative Instruments and Hedging Activities* ("SFAS 161"). SFAS 161 changes the disclosure requirements for derivative instruments and hedging activities. Entities are required to provide disclosures about (a) how and why an entity uses derivative instruments, (b) how derivative instruments and related hedged items are accounted for under FASB Statement No. 133, *Accounting for Derivative Instruments and Hedging Activities*, and its related interpretations, and (c) how derivative instruments and related hedged items affect an entity's financial position, financial performance, and cash flows. SFAS 161 is effective for fiscal years and interim periods beginning after November 15, 2008 and requires comparative disclosures only for periods subsequent to initial adoption. The adoption of the provisions of SFAS 161 will not impact our consolidated financial position or results of operations.

In May 2008, the FASB issued FASB Staff Position No. APB 14-1, *Accounting for Convertible Debt Instruments That May Be Settled in Cash upon Conversion (Including Partial Cash Settlement)* ("FSP APB 14-1"). The guidance is effective for fiscal years beginning after December 15, 2008, and interim periods within those years. FSP APB 14-1 will require issuers of convertible debt that can be settled in cash to separately account for (i.e., bifurcate) a portion of the debt associated with the conversion feature and reclassify this portion to stockholders' equity. The liability portion, which represents the fair value of the debt without the conversion feature, is accreted to its face value over the life of the debt using the effective interest method, with the accretion recorded to interest expense. FSP APB 14-1 will be applied retrospectively to all periods presented. The cumulative effect of the change in accounting principle on periods prior to those presented will be recognized as of the beginning of the first period presented. We expect the adoption of FSP APB 14-1 to have a material effect on our consolidated financial position, results of operations, and earnings per share. During the second quarter of 2007, we issued New Notes that may be settled in cash upon conversion and are subject to the requirements of FSB APB 14-1. As of the adoption of FSP APB 14-1 in the beginning of 2009, effective as of date of issuance of the New Notes, we will reclassify approximately \$16.3 million from long-term debt to additional paid-in capital, and our accumulated deficit will reflect approximately \$4.8 million of debt accretion that occurred between the issuance date of the New Notes and the adoption date. Approximately \$2.8 to \$3.3 million of additional interest expense will be recorded annually from the adoption date through the maturity date of the New Notes. This additional interest expense will not require the use of cash.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Market Risk

The principal market risks (such as the risk of loss arising from adverse changes in market rates and prices) to which we are exposed are:

rates on debt and short-term and long-term investment portfolios, and

exchange rates, generating translation and transaction gains and losses.

Interest Rates

We centrally manage our debt and investment portfolios considering investment opportunities and risks, tax consequences and overall financing strategies. Our investment portfolios at December 31, 2008 and December 31, 2007, respectively, consist of cash equivalents. Assuming year-end 2008 variable debt and investment levels, a 100 basis points change in interest rates would not have a material impact on net interest expense. In December 2001 and January 2002, we issued an aggregate of \$220.0 million of 4.125% convertible subordinated notes ("Old Notes"). During the first quarter of 2006, we repurchased \$20.0 million of our Old Notes, reducing the amount outstanding from \$220.0 million to \$200.0 million. During the first quarter of 2007, we repurchased \$56.0 million of our Old Notes, reducing the amount outstanding from \$200.0 million to \$144.0 million. During the second quarter of 2007, we issued new convertible subordinated notes pursuant to privately negotiated exchange agreements with certain holders of the original convertible subordinated notes ("New Notes") to exchange \$118.8 million aggregate principal amount of the Old Notes for approximately \$117.8 million aggregate principal amount of new notes. Following the exchange transactions, approximately \$25.2 million of the Old Notes remained outstanding. During the fourth quarter of 2008, we paid off the remaining \$25.2 million of Old Notes outstanding. In addition, we repurchased \$12.2 million aggregate principal amount of our New Notes, reducing the amount outstanding from \$117.8 million to \$105.6 million. The New Notes bear interest at 4.125% per annum and mature on April 15, 2012. These notes are convertible, at the option of the holder, at any time during the period beginning on January 15, 2012 through the close of business on the second day prior to April 15, 2012 and earlier upon the occurrence of certain events including our common stock trading at prices 130% over the conversion price for a specified period. Such notes are convertible at a price of \$27.23 per share or a premium of 38% over the closing market price for our common stock on April 16, 2007. We pay interest on these notes on April 15 and October 15 of each year.

Foreign Operations

Operating in international markets involves exposure to movements in currency exchange rates, which are volatile at times. The economic impact of currency exchange rate movements on Veeco is complex because such changes are often linked to variability in real growth, inflation, interest rates, governmental actions and other factors. These changes, if material, could cause us to adjust our financing and operating strategies. Consequently, isolating the effect of changes in currency does not incorporate these other important economic factors.

Our net sales to foreign customers represented approximately 63%, 68%, and 67% of our total net sales in 2008, 2007, and 2006, respectively. We expect that net sales to foreign customers will continue to represent a large percentage of our total net sales. Our net sales denominated in foreign currencies represented approximately 15%, 20%, and 16% of total net sales in 2008, 2007, and 2006, respectively. The aggregate foreign currency exchange gain (loss) included in determining consolidated results of operations was approximately \$0.1 million, (\$0.5) million, and (\$0.3) million in 2008, 2007, and 2006, respectively. Included in the aggregate foreign currency exchange gain (loss) were losses relating to forward contracts of \$1.0 million, \$0.1 million, and \$0.2 million in 2008, 2007, and 2006, respectively. These amounts were recognized and included in other income, net. As of December 31, 2008, approximately \$0.9 million of losses related to forward contracts were included in accrued expenses and subsequently paid in January 2009. As of December 31, 2007, approximately \$0.1 million of gains related to forward contracts were included in prepaid expenses and other current assets and cash in an amount equivalent to such gains was received in January 2008. On December 27, 2007, we entered into forward contracts for the month of January 2008 for the notional amount of approximately \$7.0 million. The fair values of these contracts at inception were zero, which did not significantly change at December 31, 2007. A monthly forward contract for a notional amount of \$0.5 million for the month of January 2009 was not entered into until January 2009. We are exposed to financial market risks, including changes in foreign currency exchange rates. To mitigate these risks, we use derivative financial

instruments. We do not use derivative financial instruments for speculative or trading purposes. We enter into monthly forward contracts to reduce the effect of fluctuating foreign currencies on short-term foreign currency-denominated intercompany transactions and other known currency exposures. The average notional amount of such contracts outstanding was approximately \$2.1 million for the year ended December 31, 2008. The changes in currency exchange rates that have the largest impact on translating our international operating profit (loss) are the Japanese Yen and the Euro. We believe that based upon our hedging program, a 10% change in foreign exchange rates would have an immaterial impact on the consolidated results of operations. We believe that this quantitative measure has inherent limitations because, as discussed in the first paragraph of this section, it does not take into account any governmental actions or changes in either customer purchasing patterns or our financing and operating strategies.

Item 8. Financial Statements and Supplementary Data

Our Consolidated Financial Statements are listed in the Index to Consolidated Financial Statements and Financial Statement Schedule filed as part of this Form 10-K.

Quarterly Results of Operations

The following table presents selected unaudited financial data for each quarter of fiscal 2008 and 2007. Consistent with prior years, we report interim quarters, other than fourth quarters which always end on December 31, on a 13-week basis ending on the last Sunday within such period. The interim quarter ends are determined at the beginning of each year based on the 13-week quarters. The 2008 interim quarter ends were March 30, June 29, and September 28. The 2007 interim quarter ends were April 1, July 1, and September 30. For ease of reference, we report these interim quarter ends as March 31, June 30, and September 30 in our interim condensed consolidated financial statements.

Although unaudited, this information has been prepared on a basis consistent with our audited Consolidated Financial Statements and, in the opinion of our management, reflects all adjustments (consisting only of normal recurring adjustments) that we consider necessary for a fair presentation of this information in accordance with accounting principles generally accepted in the United States. Such quarterly results are not necessarily indicative of future results of operations and should be read in conjunction with our audited Consolidated Financial Statements and the notes thereto.

| | Fiscal 2008 | | | | | Fiscal 2007 | | | | |
|---|---------------------------------------|------------|------------|------------|------------|---------------------------------------|-----------|-----------|------------|------------|
| | Q1 | Q2 | Q3 | Q4 | Year | Q1 | Q2 | Q3 | Q4 | Year |
| | (in thousands, except per share data) | | | | | (in thousands, except per share data) | | | | |
| Net sales | \$ 102,307 | \$ 114,449 | \$ 115,709 | \$ 110,344 | \$ 442,809 | \$ 99,166 | \$ 98,769 | \$ 97,718 | \$ 106,822 | \$ 402,475 |
| Gross profit | 42,626 | 47,730 | 46,083 | 40,155 | 176,594 | 43,695 | 42,245 | 35,894 | 35,677 | 157,511 |
| Net (loss) income | (1,583) | 4,202 | (1,673) | (72,009) | (71,063) | 293 | (2,595) | (5,683) | (9,374) | (17,359) |
| Net (loss) income per common share | \$ (0.05) | \$ 0.13 | \$ (0.05) | \$ (2.29) | \$ (2.27) | \$ 0.01 | \$ (0.08) | \$ (0.18) | \$ (0.30) | \$ (0.56) |
| Diluted net (loss) income per common share | \$ (0.05) | \$ 0.13 | \$ (0.05) | \$ (2.29) | \$ (2.27) | \$ 0.01 | \$ (0.08) | \$ (0.18) | \$ (0.30) | \$ (0.56) |
| Weighted average shares outstanding | 31,161 | 31,255 | 31,458 | 31,500 | 31,347 | 30,899 | 30,926 | 31,100 | 31,128 | 31,020 |
| Diluted weighted average shares outstanding | 31,161 | 31,590 | 31,458 | 31,500 | 31,347 | 31,281 | 30,926 | 31,100 | 31,128 | 31,020 |

During the first quarter of 2008, we recognized a restructuring charge of \$2.9 million, primarily for lease-related costs associated with the consolidation of our Corporate headquarters into our Plainview, New York facility and personnel severance, and an asset impairment charge of \$0.3 million. During the third quarter of 2008, we recognized an additional restructuring charge of \$4.1 million, consisting of \$3.7 million associated with the acceleration of equity awards and other severance costs resulting from the mutually agreed termination of the employment agreement of the Company's former CEO, as well as \$0.4 million for severance and lease-related charges in Metrology. During the fourth quarter of 2008,

we recognized an additional restructuring charge of \$3.6 million related to personnel severance costs and lease-related commitments, as well as an asset impairment charge of \$73.0 million, consisting of \$52.3 related to goodwill and \$20.7 million related to long-lived assets, and a \$2.9 million inventory write-off associated with legacy products in Metrology. These charges were partially offset by a \$5.0 million net gain on the early extinguishment of 4.125% convertible subordinated notes.

During the first quarter of 2007, we recorded a net gain on the extinguishment of debt of \$0.7 million, resulting from the repurchase of \$56.0 million of our 4.125% convertible subordinated notes.

During the second quarter of 2007, in conjunction with a cost reduction plan, we recognized a restructuring charge of approximately \$1.5 million. During the third quarter of 2007, we recognized an additional charge of \$0.5 million related to this plan. During the fourth quarter of 2007, we recognized additional restructuring expense of \$4.7 million, as well as an asset impairment charge of \$1.1 million and an inventory write-off of \$4.8 million.

A variety of factors influence the level of our net sales in a particular quarter including economic conditions in the HB-LED, solar, data storage and semiconductor industries, the timing of significant orders, shipment delays, specific feature requests by customers, the introduction of new products by us and our competitors, production and quality problems, changes in material costs, disruption in sources of supply, seasonal patterns of capital spending by customers, and other factors, many of which are beyond our control. In addition, we derive a substantial portion of our revenues from the sale of products which have an average selling price in excess of \$750,000. As a result, the timing of recognition of revenue from a single transaction could have a significant impact on our net sales and operating results in any given quarter.

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

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our senior management is responsible for establishing and maintaining a system of disclosure controls and procedures (as defined in Rule 13a-14 and 15d-14 under the Securities Exchange Act of 1934 (the "Exchange Act")) designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported, within the time periods specified in the Securities and Exchange Commission's rules and forms. Disclosure controls and procedures include, without limitation, controls, and procedures designed to ensure that information required to be disclosed by an issuer in the reports that it files or submits under the Exchange Act is accumulated and communicated to the issuer's management, including its principal executive officer or officers and principal financial officer or officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

We have evaluated the effectiveness of the design and operation of our disclosure controls and procedures under the supervision of and with the participation of management, including the chief executive officer and chief financial officer, as of the end of the period covered by this report. Based on that evaluation, our chief executive officer and our chief financial officer concluded that our disclosure controls and procedures are effective to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms and is accumulated and communicated to our management, including our principal executive officer and principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

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Subsequent to that evaluation there have been no significant changes in our disclosure controls or procedures or other factors that could significantly affect these controls or procedures after such evaluation.

Design and Evaluation of Internal Control Over Financial Reporting

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, we have included a report of management's assessment of the design and effectiveness of its internal controls as part of this Annual Report on Form 10-K for the year ended December 31, 2008. Our independent registered public accounting firm also attested to, and reported on, the effectiveness of internal control over financial reporting. Management's report and the independent registered public accounting firm's attestation report are included in our Consolidated Financial Statements for the year ended December 31, 2008 under the caption entitled "Management's Report on Internal Control Over Financial Reporting" and "Report of Independent Registered Public Accounting Firm on Internal Control Over Financial Reporting."

Changes in Internal Control Over Financial Reporting

We have implemented company-wide integrated applications software. We completed the conversion to this platform in all of our business locations by April 2008 other than at Veeco Solar, which was acquired from Mill Lane during the second quarter of 2008. The implementation of applications software was completed at Veeco Solar during the first quarter of 2009. As a result of this company-wide integrated software, certain changes have been made to our internal controls, which management believes will strengthen our internal control structure. There have been no other significant changes in our internal controls or other factors during the fiscal year ended December 31, 2008 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Portions of the information required by Part III of Form 10-K are incorporated by reference from Veeco's Proxy Statement to be filed with the SEC in connection with Veeco's 2009 Annual Meeting of Stockholders (the "Proxy Statement").

Item 10. Directors, Executive Officers, and Corporate Governance

The information required by Item 10 of Form 10-K is incorporated by reference to our Proxy Statement under the headings "Corporate Governance," "Executive Officers" and "Section 16(a) Reporting Compliance."

We have adopted a Code of Ethics for Senior Officers (the "Code") which applies to our chief executive officer, president, principal financial officer, principal accounting officer, and persons performing similar functions. A copy of the Code can be found on our website (www.veeco.com). We intend to disclose on our website the nature of any future amendments to and waivers of the Code that apply to the chief executive officer, president, principal financial officer, principal accounting officer or persons performing similar functions. We have also adopted a Code of Business Conduct which applies to all of our employees, including those listed above, as well as to our directors. A copy of the Code of Business Conduct can be found on our website (www.veeco.com). The website address above is intended to be an inactive, textual reference only. None of the material on this website is part of this report.

Item 11. Executive Compensation

The information required by Item 11 of Form 10-K is incorporated by reference to our Proxy Statement under the heading "Executive Compensation."

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

The information required by Item 12 of Form 10-K is incorporated by reference to our Proxy Statement under the heading "Security Ownership of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information."

The following table gives information about our common stock that may be issued under our equity compensation plans as of December 31, 2008. See Note 5 to the Consolidated Financial Statements included herein for information regarding the material features of these plans.

| | Number of securities to be issued upon exercise of outstanding options, warrants, and rights (a) | Weighted average exercise price of outstanding options, warrants, and rights (b) | Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c) |
|--|--|---|---|
| Equity compensation plans approved by security holders | 5,394,052(1) \$ | 20.25 | 1,037,341 |
| Equity compensation plans not approved by security holders | 178,042(2) \$ | 21.57 | |
| Total | 5,572,094 | | 1,037,341 |

(1)

Includes 3,726 stock options assumed in connection with the acquisition of CVC, Inc. on May 10, 2000, which merger was approved by stockholders.

- (2) Includes 145,342 stock options assumed in connection with the acquisition of Applied Epi, Inc. on September 17, 2001.

Item 13. Certain Relationships, Related Transactions and Director Independence

The information required by Item 13 of Form 10-K is incorporated by reference to our Proxy Statement under the headings "Independence of the Board of Directors" and "Certain Relationships and Related Transactions."

Item 14. Principal Accounting Fees and Services

The information required by Item 14 of Form 10-K is incorporated by reference to our Proxy Statement under the heading "Proposal 2 Ratification of the Appointment of Ernst & Young LLP."

PART IV

Item 15. Exhibits and Financial Statement Schedules

- (a) The Registrant's financial statements together with a separate table of contents are annexed hereto. The financial statement schedule is listed in the separate table of contents annexed hereto.
- (b) Exhibits

Unless otherwise indicated, each of the following exhibits has been previously filed with the Securities and Exchange Commission by the Company under File No. 0-16244.

| Number | Exhibit | Incorporated by Reference to the Following Documents |
|---------------|---|--|
| 3.1 | Amended and Restated Certificate of Incorporation of the Company dated December 1, 1994, as amended June 2, 1997 and July 25, 1997. | Quarterly Report on Form 10-Q for the quarter ended June 30, 1997, Exhibit 3.1 |
| 3.2 | Amendment to Certificate of Incorporation of Veeco dated May 29, 1998. | Annual Report on Form 10-K for the year ended December 31, 2000, Exhibit 3.2 |
| 3.3 | Amendment to Certificate of Incorporation of Veeco dated May 5, 2000. | Quarterly Report on Form 10-Q for the quarter ended June 30, 2000, Exhibit 3.1 |
| 3.4 | Certificate of Designation, Preferences, and Rights of Series A Junior Participating Preferred Stock of Veeco. | Quarterly Report on Form 10-Q for the quarter ended March 31, 2001, Exhibit 3.1 |
| 3.5 | Fourth Amended and Restated Bylaws of the Company, effective October 23, 2008 | Current Report on Form 8-K filed October 27, 2008, Exhibit 3.1 |
| 4.1 | Rights Agreement, dated as of March 13, 2001, between Veeco Instruments Inc. and American Stock Transfer and Trust Company, as Rights Agent, including the form of the Certificate of Designation, Preferences, and Rights setting forth the terms of the Series A Junior Participating Preferred Stock, par value \$0.01 per share, as Exhibit A, the form of Rights Certificates as Exhibit B and the Summary of Rights to Purchase Preferred Stock as Exhibit C. | Registration Statement on Form 8-A dated March 15, 2001, Exhibit 1 |
| 4.2 | Amendment to Rights Agreement, dated as of September 6, 2001, between Veeco Instruments Inc. and American Stock Transfer and Trust Company, as rights agent. | Current Report on Form 8-K, filed September 21, 2001, Exhibit 4.1 |
| 4.3 | Amendment No 2 to Rights Agreement, dated as of July 11, 2002, between Veeco Instruments Inc. and American Stock Transfer and Trust Company, as rights agent. | Current Report on Form 8-K, filed July 12, 2002, Exhibit 4.1 |
| 4.4 | Indenture, dated April 16, 2007, between Veeco Instruments Inc. and U.S. Bank National Trust | Post-Effective Amendment No. 1 To Registration Statement on Form S-3 (File No. 333-128004) filed April 16, 2007, Exhibit 4.1 |

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| Number | Exhibit | Incorporated by Reference to the Following Documents |
|--------|--|---|
| 4.5 | First Supplemental Indenture, dated April 20, 2007, by and between Veeco Instruments Inc. and U.S. Bank Trust National Association, as Trustee | Current Report on Form 8-K, filed April 20, 2007, Exhibit 4.1 |
| 10.1 | Credit Agreement, dated as of August 20, 2007, by and among Veeco Instruments Inc., HSBC Bank USA, National Association, as administrative agent, and the lenders named therein. | Quarterly Report on Form 10-Q for the quarter ended September 30, 2007, Exhibit 10.1 |
| 10.2 | First Amendment dated as of February 25, 2008 to the Credit Agreement dated August 20, 2007 among Veeco Instruments Inc., HSBC Bank USA, National Association, as administrative agent, and the lenders named therein. | Annual Report on Form 10-K for the year ended December 31, 2007, Exhibit 10.2 |
| 10.3 | Amendment and Reaffirmation dated August 20, 2007 of Security Agreement dated as of March 15, 2005 among Veeco Instruments Inc., the subsidiaries of Veeco named therein and HSBC Bank USA, National Association, as administrative agent. | Quarterly Report on Form 10-Q for the quarter ended September 30, 2007, Exhibit 10.2 |
| 10.4 | Loan Agreement dated as of December 15, 1999 between Applied Epi, Inc. and Jackson National Life Insurance Company. | Quarterly Report on Form 10-Q for the quarter ended September 30, 2001, Exhibit 10.2 |
| 10.5 | Amendment to Loan Documents effective as of September 17, 2001 between Applied Epi, Inc. and Jackson National Life Insurance Company (executed in June 2002). | Quarterly Report on Form 10-Q for the quarter ended June 30, 2002, Exhibit 10.2 |
| 10.6 | Promissory Note dated as of December 15, 1999 issued by Applied Epi, Inc. to Jackson National Life Insurance Company. | Quarterly Report on Form 10-Q for the quarter ended September 30, 2001, Exhibit 10.3 |
| 10.7* | Veeco Instruments Inc. Amended and Restated 1992 Employees' Stock Option Plan. | Registration Statement on Form S-1 (File No. 33-93958), Exhibit 10.20 |
| 10.8* | Amendment dated May 15, 1997 to Veeco Instruments Inc. Amended and Restated 1992 Employees' Stock Option Plan. | Registration Statement on Form S-8 (File No. 333-35009) filed September 5, 1997, Exhibit 10.1 |
| 10.9* | Amendment dated July 25, 1997 to Veeco Instruments Inc. Amended and Restated 1992 Employees' Stock Option Plan. | Registration Statement on Form S-8 (File No. 333-35009) filed September 5, 1997, Exhibit 10.2 |
| 10.10* | Amendment dated May 29, 1998 to Veeco Instruments Inc. Amended and Restated 1992 Employees' Stock Option Plan. | Registration Statement on Form S-8 (File No. 333-79469) filed May 27, 1999, Exhibit 10.1 |
| 10.11* | Amendment dated May 14, 1999 to Veeco Instruments Inc. Amended and Restated 1992 Employees' Stock Option Plan. | Registration Statement on Form S-8 (File No. 333-79469) filed May 27, 1999, Exhibit 10.2 |

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| Number | Exhibit | Incorporated by Reference to the Following Documents |
|--------|---|--|
| 10.12* | Veeco Instruments Inc. 1994 Stock Option Plan for Outside Directors. | Registration Statement on Form S-1 (File No. 33-85184), Exhibit 10.17 |
| 10.13* | Amendment dated May 15, 1996 to Veeco Instruments Inc. Amended and Restated 1994 Stock Option Plan for Outside Directors. | Registration Statement on Form S-8 (File No. 333-08981) filed July 26, 1996, Exhibit 10.2 |
| 10.14* | Amendment dated May 15, 1997 to Veeco Instruments Inc. Amended and Restated 1994 Stock Option Plan for Outside Directors. | Registration Statement on Form S-8 (File No. 333-35009) filed September 5, 1997, Exhibit 10.3 |
| 10.15* | Amendment dated May 21, 1999 to Veeco Instruments Inc. Amended and Restated 1994 Stock Option Plan for Outside Directors. | Registration Statement on Form S-8 (File No. 333-79469) filed May 27, 1999, Exhibit 10.3 |
| 10.16* | Veeco Instruments Inc. Amended and Restated 2000 Stock Incentive Plan, effective July 20, 2006. | Quarterly Report on Form 10-Q for the quarter ended June 30, 2006, Exhibit 10.4 |
| 10.17* | Amendment No. 1 effective April 18, 2007 (ratified by the Board August 7, 2007) to Veeco Instruments Inc. Amended and Restated 2000 Stock Incentive Plan. | Quarterly Report on Form 10-Q for the quarter ended June 30, 2007, Exhibit 10.1 |
| 10.18* | Form of Restricted Stock Agreement pursuant to the Veeco Instruments Inc. 2000 Stock Incentive Plan, effective November 2005 | Quarterly Report on Form 10-Q for the quarter ended September 30, 2005, Exhibit 10.3 |
| 10.19* | Form of Directors Restricted Stock Agreement pursuant to the Veeco Instruments Inc. 2000 Stock Incentive Plan, effective May 2006 | Quarterly Report on Form 10-Q for the quarter ended September 30, 2006, Exhibit 10.2 |
| 10.20* | Form of Notice of Restricted Stock Award and related terms and conditions pursuant to the Veeco Instruments Inc. 2000 Stock Incentive Plan, effective June 2006 | Quarterly Report on Form 10-Q for the quarter ended September 30, 2006, Exhibit 10.3 |
| 10.21* | Veeco Instruments Inc. 2000 Stock Option Plan for Non-Officer Employees. | Registration Statement on Form S-8 (File Number 333-49476) filed November 7, 2000, Exhibit 4.4 |
| 10.22* | Amendment No. 1 to the Veeco Instruments Inc. 2000 Stock Option Plan for Non-Officer Employees, effective dated July 26, 2001. | Registration Statement on Form S-8 (File Number 333-66574) filed August 2, 2001, Exhibit 4.2 |
| 10.23* | Veeco Instruments Inc. 2006 Long-Term Cash Incentive Plan | Quarterly Report on Form 10-Q for the quarter ended June 30, 2006, Exhibit 10.1 |
| 10.24* | Employment agreement effective as of July 1, 2007 between John R. Peeler and Veeco Instruments Inc. | Quarterly Report on Form 10-Q for the quarter ended June 30, 2007, Exhibit 10.3 |
| 10.25* | Employment Agreement dated as of April 1, 2003 between John F. Rein, Jr. and Veeco Instruments Inc. | Quarterly Report on Form 10-Q for the quarter ended June 30, 2003, Exhibit 10.5 |

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| Number | Exhibit | Incorporated by Reference to the Following Documents |
|--------|--|--|
| 10.26* | Amendment to Employment Agreement of John F. Rein, Jr., effective June 9, 2006 | Quarterly Report on Form 10-Q for the quarter ended June 30, 2006, Exhibit 10.2 |
| 10.27* | Letter Agreement dated January 21, 2004 between the Company and John P. Kiernan. | Annual Report on Form 10-K for the year ended December 31, 2003, Exhibit 10.38 |
| 10.28* | Letter Agreement dated October 31, 2005 between Veeco Instruments Inc. and Robert P. Oates | Quarterly Report on Form 10-Q for the quarter ended September 30, 2005, Exhibit 10.1 |
| 10.29* | Form of Amendment to Letter Agreements of John P. Kiernan and Robert P. Oates effective June 9, 2006 | Quarterly Report on Form 10-Q for the quarter ended June 30, 2006, Exhibit 10.3 |
| 10.30* | Letter Agreement dated October 15, 2007 between Veeco Instruments Inc. and William A. Tomeo | Annual Report on Form 10-K for the year ended December 31, 2007, Exhibit 10.32 |
| 10.31* | Letter Agreement dated January 11, 2008 between Veeco Instruments Inc. and Mark R. Munch | Annual Report on Form 10-K for the year ended December 31, 2007, Exhibit 10.33 |
| 10.32* | Form of Indemnification Agreement entered into between Veeco Instruments Inc. and each of its directors and executive officers. | Current Report on Form 8-K filed on October 23, 2006, Exhibit 10.1 |
| 10.33* | Amendment to Employment Agreement dated as of September 12, 2008 between John F. Rein, Jr. and Veeco Instruments Inc. | Quarterly Report on Form 10-Q for the quarter ended September 30, 2008, Exhibit 10.1 |
| 10.34* | Amendment to Employment Agreement dated as of September 12, 2008 between Robert P. Oates and Veeco Instruments Inc. | Quarterly Report on Form 10-Q for the quarter ended September 30, 2008, Exhibit 10.2 |
| 10.35* | Senior Executive Change in Control Policy effective as of September 12, 2008 | Quarterly Report on Form 10-Q for the quarter ended September 30, 2008, Exhibit 10.3 |
| 10.36* | Service Agreement effective July 24, 2008 between Edward H. Braun and Veeco Instruments Inc. | Quarterly Report on Form 10-Q for the quarter ended June 30, 2008, Exhibit 10.1 |
| 10.37* | Amendment No. 1 dated December 23, 2008 (effective September 12, 2008) to Veeco Instruments Inc. Senior Executive Change in Control Policy | Filed herewith |
| 10.38* | Amendment effective December 31, 2008 to Employment Agreement between Veeco Instruments Inc. and John R. Peeler | Filed herewith |
| 10.39* | Amendment effective December 31, 2008 to Employment Agreement between Veeco Instruments Inc. and John F. Rein, Jr. | Filed herewith |
| 10.40* | Form of Amendment effective December 31, 2008 to Letter Agreements between Veeco Instruments Inc. and each of John P. Kiernan, Mark R. Munch and Robert P. Oates | Filed herewith |

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| Number | Exhibit | Incorporated by Reference to the Following Documents |
|--------|---|--|
| 10.41* | Amendment No. 2 dated January 22, 2009 to Veeco Instruments Inc. Amended and Restated 2000 Stock Incentive Plan. | Filed herewith |
| 10.42 | Second Amendment dated as of February 27, 2009 (effective December 31, 2008) to the Credit Agreement dated August 20, 2007 among Veeco Instruments Inc., HSBC Bank USA, National Association, as administrative agent, and the lenders named therein. | Filed herewith |
| 21.1 | Subsidiaries of the Registrant. | Filed herewith |
| 23.1 | Consent of Ernst & Young LLP. | Filed herewith |
| 31.1 | Certification of Chief Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities and Exchange Act of 1934. | Filed herewith |
| 31.2 | Certification of Chief Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities and Exchange Act of 1934. | Filed herewith |
| 32.1 | Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 | Filed herewith |
| 32.2 | Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 | Filed herewith |

*

Indicates a management contract or compensatory plan or arrangement, as required by Item 15(a) (3) of Form 10-K.

John F. Rein, Jr.

/s/ JOHN P. KIERNAN

Senior Vice President, Finance and Corporate
Controller (principal accounting officer)

John P. Kiernan

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Veeco Instruments Inc. and Subsidiaries

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**MANAGEMENT'S REPORT ON INTERNAL CONTROL
OVER FINANCIAL REPORTING**

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America ("GAAP"). The Company's internal control over financial reporting includes those policies and procedures that:

pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions in and dispositions of the assets of the Company;

provide reasonable assurance that transactions are recognized as necessary to permit preparation of financial statements in accordance with GAAP, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and

provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

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

As required by Section 404 of the Sarbanes-Oxley Act of 2002, management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2008. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in *Internal Control-Integrated Framework*.

Based on our assessment and those criteria, management believes that the Company maintained effective internal control over financial reporting as of December 31, 2008.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2008 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report which appears under the heading "Report of Independent Registered Public Accounting Firm."

Veeco Instruments Inc.
Plainview, NY
March 2, 2009

/s/ JOHN R. PEELER

John R. Peeler
Chief Executive Officer
Veeco Instruments Inc.
March 2, 2009

/s/ JOHN F. REIN, JR.

John F. Rein, Jr.
*Executive Vice President and
Chief Financial Officer*
Veeco Instruments Inc.
March 2, 2009

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**Report of Independent Registered Public Accounting Firm
on Internal Control Over Financial Reporting**

The Board of Directors and Shareholders of Veeco Instruments Inc.

We have audited Veeco Instruments Inc. and Subsidiaries' (the "Company") internal control over financial reporting as of December 31, 2008, based on criteria established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). The Company's management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

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

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

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

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2008, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the 2008 consolidated financial statements of the Company and our report dated March 2, 2009 expressed an unqualified opinion thereon.

/s/ ERNST & YOUNG LLP

New York, New York
March 2, 2009

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**Report of Independent Registered Public Accounting Firm
on Financial Statements**

To the Shareholders and Board of Directors of Veeco Instruments Inc.

We have audited the accompanying consolidated balance sheets of Veeco Instruments Inc. and Subsidiaries (the "Company") as of December 31, 2008 and 2007, and the related consolidated statements of operations, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2008. Our audits also included the financial statement schedule in the accompanying Index. These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company at December 31, 2008 and 2007, and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 2008, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2008, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated March 2, 2009, expressed an unqualified opinion thereon.

/s/ ERNST & YOUNG LLP

New York, New York
March 2, 2009

Table of Contents**Veeco Instruments Inc. and Subsidiaries****Consolidated Balance Sheets****(Dollars in thousands)**

| | December 31, | |
|--|---------------------|-------------------|
| | 2008 | 2007 |
| Assets | | |
| Current assets: | | |
| Cash and cash equivalents | \$ 103,799 | \$ 117,083 |
| Accounts receivable, less allowance for doubtful accounts of \$937 in 2008 and \$984 in 2007 | 59,659 | 75,207 |
| Inventories | 94,930 | 98,594 |
| Prepaid expenses and other current assets | 6,425 | 8,901 |
| Deferred income taxes | 2,185 | 2,649 |
| Total current assets | 266,998 | 302,434 |
| Property, plant, and equipment at cost, net | 64,372 | 66,142 |
| Goodwill | 59,160 | 100,898 |
| Intangible assets, net | 38,818 | 59,647 |
| Other assets | 193 | 213 |
| Total assets | \$ 429,541 | \$ 529,334 |
| Liabilities and shareholders' equity | | |
| Current liabilities: | | |
| Accounts payable | \$ 29,610 | \$ 36,639 |
| Accrued expenses | 66,964 | 60,201 |
| Deferred profit | 1,346 | 3,250 |
| Income taxes payable | 354 | 2,278 |
| Current portion of long-term debt | 196 | 25,550 |
| Total current liabilities | 98,470 | 127,918 |
| Deferred income taxes | 4,540 | 3,712 |
| Long-term debt | 108,669 | 121,035 |
| Other non-current liabilities | 2,391 | 1,978 |
| Noncontrolling interest | 784 | 1,014 |
| Commitments and contingencies (Note 8) | | |
| Shareholders' equity: | | |
| Preferred stock, 500,000 shares authorized; no shares issued and outstanding | | |
| Common stock, 60,000,000 shares authorized; 32,187,599 and 31,823,890 shares issued and outstanding in 2008 and 2007, respectively | 316 | 312 |
| Additional paid-in-capital | 409,982 | 399,795 |
| Accumulated deficit | (202,778) | (131,715) |
| Accumulated other comprehensive income | 7,167 | 5,285 |
| Total shareholders' equity | 214,687 | 273,677 |
| Total liabilities and shareholders' equity | \$ 429,541 | \$ 529,334 |

The accompanying notes are an integral part of these consolidated financial statements.

Table of Contents**Veeco Instruments Inc. and Subsidiaries****Consolidated Statements of Operations****(In thousands, except per share data)**

| | Year ended December 31, | | |
|---|--------------------------------|-------------|-------------|
| | 2008 | 2007 | 2006 |
| Net sales | \$442,809 | \$402,475 | \$441,034 |
| Cost of sales | 266,215 | 244,964 | 246,910 |
| Gross profit | 176,594 | 157,511 | 194,124 |
| Operating expenses: | | | |
| Selling, general, and administrative expense | 92,838 | 90,972 | 93,110 |
| Research and development expense | 60,353 | 61,174 | 61,925 |
| Amortization expense | 10,745 | 10,250 | 16,045 |
| Restructuring expense | 10,562 | 6,726 | |
| Asset impairment charge | 73,322 | 1,068 | |
| Write-off of purchased in-process technology | | | 1,160 |
| Other income, net | (668) | (618) | (572) |
| Total operating expenses | 247,152 | 169,572 | 171,668 |
| Operating (loss) income | (70,558) | (12,061) | 22,456 |
| Interest expense | 6,400 | 6,976 | 9,194 |
| Interest income | (2,588) | (3,963) | (4,926) |
| Gain on extinguishment of debt | (4,969) | (738) | (330) |
| (Loss) income before income taxes and noncontrolling interest | (69,401) | (14,336) | 18,518 |
| Income tax provision | 1,892 | 3,651 | 4,959 |
| Noncontrolling interest | (230) | (628) | (1,358) |
| Net (loss) income | \$ (71,063) | \$ (17,359) | \$ 14,917 |
| (Loss) income per common share: | | | |
| Net (loss) income per common share | \$ (2.27) | \$ (0.56) | \$ 0.49 |
| Diluted net (loss) income per common share | \$ (2.27) | \$ (0.56) | \$ 0.48 |
| Weighted average shares outstanding | 31,347 | 31,020 | 30,492 |
| Diluted weighted average shares outstanding | 31,347 | 31,020 | 31,059 |

The accompanying notes are an integral part of these consolidated financial statements.

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Veeco Instruments Inc. and Subsidiaries

Consolidated Statements of Shareholders' Equity

(Dollars in thousands)

| | Common Stock | | Additional | Accumulated | Accumulated | Total | Comprehensive |
|---|--------------|--------|------------|--------------|---------------|------------|---------------|
| | Shares | Amount | Paid-In | Deficit | Comprehensive | | Income (Loss) |
| | | | Capital | | Income | | |
| Balance at December 31, 2005 | 30,060,182 | \$ 300 | \$ 373,741 | \$ (128,445) | \$ 2,991 | \$ 248,587 | |
| Exercise of stock options and stock issuances under stock purchase plan | 853,224 | 9 | 15,515 | | | 15,524 | \$ |
| Share-based compensation expense | | | 2,219 | | | 2,219 | |
| Issuance, vesting and cancellation of restricted stock | 205,216 | | (99) | | | (99) | |
| Translation adjustments | | | | | 644 | 644 | 644 |
| Defined benefit pension plan | | | | | (41) | (41) | (41) |
| Net income | | | | 14,917 | | 14,917 | 14,917 |
| Balance at December 31, 2006 | 31,118,622 | 309 | 391,376 | (113,528) | 3,594 | 281,751 | \$ 15,520 |
| Cumulative effect of accounting change due to adoption of FIN 48 | | | | (828) | | (828) | \$ |
| Exercise of stock options and stock issuances under stock purchase plan | 205,995 | 2 | 3,170 | | | 3,172 | |
| Share-based compensation expense | | | 5,620 | | | 5,620 | |
| Issuance, vesting and cancellation of restricted stock | 499,273 | 1 | (371) | | | (370) | |
| Translation adjustments | | | | | 1,698 | 1,698 | 1,698 |
| Defined benefit pension plan | | | | | (7) | (7) | (7) |
| Net loss | | | | (17,359) | | (17,359) | (17,359) |
| Balance at December 31, 2007 | 31,823,890 | 312 | 399,795 | (131,715) | 5,285 | 273,677 | \$ (15,668) |
| Exercise of stock options | 67,080 | 1 | 680 | | | 681 | \$ |
| Share-based compensation expense | | | 10,526 | | | 10,526 | |
| Issuance, vesting and cancellation of restricted stock | 296,629 | 3 | (1,019) | | | (1,016) | |
| Translation adjustments | | | | | 1,845 | 1,845 | 1,845 |
| Defined benefit pension plan | | | | | 37 | 37 | 37 |
| Net loss | | | | (71,063) | | (71,063) | (71,063) |

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| | | | | | | | | | | | | | |
|---------------------------------|------------|----|-----|----|---------|----|-----------|----|-------|----|---------|----|----------|
| Balance at December 31, 2008 | 32,187,599 | \$ | 316 | \$ | 409,982 | \$ | (202,778) | \$ | 7,167 | \$ | 214,687 | \$ | (69,181) |
|---------------------------------|------------|----|-----|----|---------|----|-----------|----|-------|----|---------|----|----------|

The accompanying notes are an integral part of these consolidated financial statements.

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Table of Contents**Veeco Instruments Inc. and Subsidiaries****Consolidated Statements of Cash Flows****(In thousands)**

| | Year ended December 31, | | |
|--|-------------------------|-------------------|-------------------|
| | 2008 | 2007 | 2006 |
| Operating activities | | | |
| Net (loss) income | \$ (71,063) | \$ (17,359) | \$ 14,917 |
| Adjustments to reconcile net (loss) income to net cash provided by operating activities: | | | |
| Depreciation and amortization | 25,089 | 24,991 | 30,080 |
| Non-cash asset impairment charge | 73,322 | 1,068 | |
| Non-cash inventory write-off | 2,900 | 4,821 | |
| Non-cash restructuring credit | (105) | | |
| Net gain on early extinguishment of long-term debt | (4,969) | (738) | (330) |
| Non-cash share-based compensation | 10,526 | 5,620 | 2,219 |
| Deferred income taxes | 1,569 | 1,332 | 1,370 |
| Noncontrolling interest | (230) | (628) | (1,358) |
| Provision for bad debts | (49) | (1,070) | 322 |
| Net gain on sale of fixed assets | (53) | (77) | (18) |
| Write-off of purchased in-process technology | | | 1,160 |
| Changes in operating assets and liabilities: | | | |
| Accounts receivable | 20,062 | 15,114 | 3,439 |
| Inventories | 6,202 | (1,331) | (10,518) |
| Accounts payable | (7,921) | (4,049) | 9,155 |
| Accrued expenses, deferred profit, and other current liabilities | (10,211) | 13,129 | 228 |
| Other, net | (805) | (1,638) | (4,651) |
| Net cash provided by operating activities | 44,264 | 39,185 | 46,015 |
| Investing activities | | | |
| Capital expenditures | (12,806) | (9,092) | (17,401) |
| Payments for net assets of businesses acquired | (10,981) | | (3,068) |
| Proceeds from sale of property, plant, and equipment and assets held for sale | 103 | 312 | 47 |
| Other | | | 1,686 |
| Net cash used in investing activities | (23,684) | (8,780) | (18,736) |
| Financing activities | | | |
| Proceeds from stock issuances | 681 | 3,172 | 15,524 |
| Payments of debt issuance costs | | (1,579) | |
| Restricted stock tax withholdings | (1,019) | (371) | (99) |
| Repayments of long-term debt | (32,659) | (60,706) | (19,776) |
| Net cash used in financing activities | (32,997) | (59,484) | (4,351) |
| Effect of exchange rate changes on cash and cash equivalents | (867) | (884) | (381) |
| Net (decrease) increase in cash and cash equivalents | (13,284) | (29,963) | 22,547 |
| Cash and cash equivalents at beginning of year | 117,083 | 147,046 | 124,499 |
| Cash and cash equivalents at end of year | \$ 103,799 | \$ 117,083 | \$ 147,046 |
| Supplemental disclosure of cash flow information | | | |
| Interest paid | \$ 6,530 | \$ 6,108 | \$ 9,202 |
| Income taxes paid | 3,215 | 1,618 | 2,915 |

Non-cash investing and financing activities

| | | | |
|--|-------|---------|-------|
| Accrual of contingent earn-out payment to former shareholders of acquired company | 9,644 | | |
| Transfers from property, plant, and equipment to inventory | 404 | 1,758 | 1,486 |
| Transfers from inventory to property, plant, and equipment | 385 | 181 | 955 |
| Exchange of convertible subordinated notes | | 118,766 | |
| Acquisition of assets in connection with the consolidation of a variable interest entity | | | 3,550 |
| Assumption of liabilities in connection with the consolidation of a variable interest entity | | | 643 |

The accompanying notes are an integral part of these consolidated financial statements.

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Veeco Instruments Inc. and Subsidiaries

Notes to Consolidated Financial Statements

December 31, 2008

1. Description of Business and Significant Accounting Policies

Business

Veeco Instruments Inc. (together with its consolidated subsidiaries, "Veeco," the "Company" or "we") designs and manufactures enabling solutions for customers in the high brightness light emitting diode ("HB-LED"), solar, data storage, semiconductor, scientific research and industrial markets. We have leading technology positions in each of our three reportable segments: LED & Solar Process Equipment, Data Storage Process Equipment, and Metrology.

In our LED & Solar segment, we design and manufacture metal organic chemical vapor deposition ("MOCVD") systems, molecular beam epitaxy ("MBE") systems and sources, and other types of deposition systems such as web coaters, which we sell to manufacturers of HB-LEDs, solar cells and telecommunications devices and to universities and scientific research centers.

In our Data Storage segment, we design and manufacture ion beam etch, ion beam deposition, diamond-like carbon, physical vapor deposition, and dicing and slicing products primarily used to create thin film magnetic heads ("TFMHs") that read and write data on hard drives.

In our Metrology segment, we design and manufacture atomic force microscopes ("AFMs"), stylus profilers, and optical interferometers used to provide critical surface measurements in research and production environments. Our broad line of AFMs, scanning probe microscopes ("SPMs"), optical interferometers, and stylus profilers are used in universities, research facilities and scientific centers worldwide. In production environments such as semiconductor, data storage and other industries, our metrology instruments enable customers to monitor their products throughout the manufacturing process to improve yields, reduce costs, and improve product quality.

Basis of Presentation

Consistent with prior years, we report interim quarters, other than fourth quarters which always end on December 31, on a 13-week basis ending on the last Sunday within such period. The interim quarter ends are determined at the beginning of each year based on the 13-week quarters. The 2008 interim quarter ends were March 30, June 29, and September 28. The 2007 interim quarter ends were April 1, July 1, and September 30. For ease of reference, we report these interim quarter ends as March 31, June 30, and September 30 in our interim condensed consolidated financial statements.

Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant estimates made by management include allowance for doubtful accounts, inventory obsolescence, purchase accounting allocations, recoverability and useful lives of property, plant and equipment and identifiable intangible assets, recoverability of goodwill, recoverability of deferred tax assets, liabilities for product warranty, accruals for contingencies and share-based payments, including forfeitures and liabilities for tax uncertainties. Actual results could differ from those estimates.

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Veeco Instruments Inc. and Subsidiaries

Notes to Consolidated Financial Statements (Continued)

December 31, 2008

Principles of Consolidation

The accompanying Consolidated Financial Statements include the accounts of Veeco, our subsidiaries, and a variable interest entity, of which we are the primary beneficiary. Intercompany items and transactions have been eliminated in consolidation.

Revenue Recognition

We recognize revenue based on guidance provided in Securities and Exchange Commission Staff Accounting Bulletin No. 104, *Revenue Recognition*. Our revenue transactions include sales of products under multiple-element arrangements. Revenue under these arrangements is allocated to each element based upon its estimated fair market value, in accordance with the provisions of Emerging Issues Task Force ("EITF") 00-21, *Revenue Arrangements with Multiple Deliverables*.

We consider a broad array of facts and circumstances when evaluating each of our sales arrangements in determining when to recognize revenue, including specific terms of the purchase order, contractual obligations to the customer, the complexity of the customer's post-delivery acceptance provisions, customer creditworthiness and the installation process. Revenue is recognized when persuasive evidence of an arrangement exists, the sales price is fixed or determinable, collectibility is reasonably assured and no uncertainties exist regarding customer acceptance. For transactions on which we recognize systems revenue, either at the time of shipment or delivery, our contractual arrangements with customers do not contain provisions for right of return or forfeiture, refund or other purchase price concessions. Sales arrangements are reviewed on a case-by-case basis; however, our products generally fall into one of two categories; either instruments or systems, for which we have established revenue recognition protocols as described below.

Instruments Standard products produced according to our published specifications, principally metrology instruments sold typically to universities, research facilities and scientific centers and in general industrial applications where installation is inconsequential or perfunctory and no substantive customer acceptance provisions exist, revenue is recognized when title and risk of loss pass to the customer, either at time of shipment or delivery. Acceptance of the product by the customer is based upon meeting standard published specifications. Customer acceptance provisions include initial setup at the customer site, performance of functional test procedures and calibration testing of the basic features and functionality of the product. These provisions are a replication of the testing performed in our facilities prior to shipment. The skills and equipment required to complete installation of such instruments are not specialized and are readily available in the market and are often performed by distributors or representative organizations.

Systems Process equipment systems and certain metrology systems, which are sold to manufacturers in the data storage, LED, solar and semiconductor industries and are used in manufacturing facilities and commercial production environments typically include process acceptance criteria based upon Veeco and/or customer specifications. We are generally required to install these products and demonstrate compliance with acceptance tests at the customer's facility. Generally, based upon the terms of the sales arrangement, these products are sold with a retention (typically 10% to 20% of the sales contract value) which is payable by the customer when installation and field acceptance is completed. Such installations are not considered complex and are not deemed essential to the functionality of the equipment because they do not involve significant changes to the features or capabilities of the equipment or involve building complex interfaces or connections. Installation normally represents only 2% - 4% of the fair value of the sales contract. Sales arrangements for these

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Veeco Instruments Inc. and Subsidiaries

Notes to Consolidated Financial Statements (Continued)

December 31, 2008

systems are accounted for in accordance with EITF 00-21, as the Company bifurcates transactions into separate units of accounting or elements based on objective evidence of fair value. The two elements are the system and installation of the system. The amount of revenue allocated to each element is based upon its relative fair value. The price charged when the system or installation service is sold separately generally determines fair value. The value of the installation service is based upon the fair value of the service performed, including labor, which is based upon the estimated time to complete the installation at hourly rates, and material components. We recognize revenue for the system or delivered element since the delivered item has value to the customer on a standalone basis, there is objective and reliable evidence of the fair value of the undelivered item (i.e., the installation service) and delivery or performance of the undelivered item is considered probable and substantially in our control, based on our historical experience. The value of the undelivered element is the greater of the fair value of the installation or the portion of the sales price that will not be received until the installation is completed (i.e., the retention amount). System revenue is generally recognized upon shipment or delivery provided title and risk of loss has passed to the customer. Revenue from installation services is recognized at the time acceptance is received from the customer. If the arrangement does not meet all the above criteria, the entire amount of the sales arrangement is deferred until the criteria have been met or all elements have been delivered to the customer or been completed.

For new products, new applications of existing products, or for products with substantive customer acceptance provisions where performance cannot be fully assessed prior to meeting customer specifications at the customer site, revenue is recognized upon completion of installation and receipt of final customer acceptance. Since title to goods generally passes to the customer upon shipment or delivery and 80% to 90% of the contract amount becomes payable at that time, inventory is relieved and accounts receivable is recognized for the amount billed at the time of shipment. The profit on the amount billed for these transactions is deferred and recognized as deferred profit in the accompanying Consolidated Balance Sheets.

In Japan, generally where our contractual terms with customers specify risk of loss and title transfers upon customer acceptance, revenue is recognized and the customer is billed upon receipt of written customer acceptance.

Revenue related to maintenance and service contracts is recognized ratably over the applicable contract term. Component and spare part revenue is recognized at the time of shipment or delivery in accordance with the terms of the applicable sales arrangement.

Cash and Cash Equivalents

Cash and cash equivalents include cash and highly liquid investments with maturities of three months or less when purchased.

Concentration of Credit Risk

Financial instruments, which potentially subject the Company to concentrations of credit risk, consist primarily of accounts receivable and cash and cash equivalents. We perform ongoing credit evaluations of our customers and, where appropriate, require that letters of credit be provided on certain foreign sales arrangements. The Company maintains allowances for potential credit losses and invests cash and cash equivalents with strong, higher credit quality issuers and continuously monitors the amount of credit exposure to any one issuer.

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Veeco Instruments Inc. and Subsidiaries

Notes to Consolidated Financial Statements (Continued)

December 31, 2008

Inventories

Inventories are stated at the lower of cost (principally first-in, first-out method) or market. Management evaluates the need to record adjustments for impairment of inventory on a quarterly basis. Our policy is to assess the valuation of all inventories, including raw materials, work in process, finished goods, and spare parts and other service inventory. Obsolete inventory or inventory in excess of management's estimated usage for the next 12 months' requirements is written down to its estimated market value, if less than its cost. Inherent in the estimates of market value are management's estimates related to our future manufacturing schedules, customer demand, technological and/or market obsolescence, possible alternative uses, and ultimate realization of excess inventory.

Goodwill and Indefinite-Lived Intangibles

We account for goodwill and intangible assets with indefinite useful lives in accordance with SFAS No. 142, *Goodwill and Other Intangible Assets*, which states that goodwill and intangible assets with indefinite useful lives should not be amortized, but instead tested for impairment at least annually at the reporting unit level. Our policy is to perform this annual impairment test in the fourth quarter of each fiscal year or more frequently if impairment indicators arise. Impairment indicators include, among other conditions, cash flow deficits, a historical or anticipated decline in revenue or operating profit, adverse legal or regulatory developments, and a material decrease in the fair value of some or all of the assets.

Pursuant to SFAS 142 we are required to determine if it is appropriate to use the operating segment as defined under SFAS 131 as the reporting unit, or one level below the operating segment, depending on whether certain criteria are met. We have identified four reporting units that are required to be reviewed for impairment. The reporting units are Data Storage Process Equipment, LED & Solar Process Equipment, AFM and Optical Metrology. AFM and Optical Metrology comprise the Metrology operating segment. In identifying the reporting units management considered the economic characteristics of operating segments including the products and services provided, production processes, types or classes of customer and product distribution.

We perform this impairment test by first comparing the fair value of our reporting units to their respective carrying amount. When determining the estimated fair value of a reporting unit, we utilize a discounted future cash flow approach since reported quoted market prices are not available for our reporting units. Developing the estimate of the discounted future cash flow requires significant judgment and projections of future financial performance. The key assumptions used in developing the discounted future cash flows are the projection of future revenues and expenses, working capital requirements, residual growth rates and the weighted average cost of capital. In developing our financial projections, we consider historical data, current internal estimates and market growth trends. Changes to any of these assumptions could materially change the fair value of the reporting unit. We reconcile the aggregate fair value of our reporting units to the our adjusted market capitalization as a supporting calculation. The adjusted market capitalization is calculated by multiplying the average share price of our common stock for the last ten trading days prior to the measurement date by the number of outstanding common shares and adding a control premium.

If the carrying value of the reporting units exceed the fair value we would then compare the implied fair value of our goodwill to the carrying amount in order to determine the amount of the impairment, if any.

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Veeco Instruments Inc. and Subsidiaries

Notes to Consolidated Financial Statements (Continued)

December 31, 2008

Definite-Lived Intangible and Long-Lived Assets

Intangible assets consist of purchased technology, customer-related intangible assets, patents, trademarks, covenants not-to-compete, capitalized software costs, software licenses, and deferred financing costs. Purchased technology consists of the core proprietary manufacturing technologies associated with the products and offerings obtained through acquisition. Intangible assets with definitive useful lives are amortized using the straight-line method over their estimated useful lives for periods ranging from 2 years to 17 years.

Costs of applying for and registering specific patents, as well as patent defense costs are capitalized and classified as intangible assets in our accompanying Consolidated Balance Sheets. As of December 31, 2008 and 2007, we had net capitalized patent costs of \$7.7 million and \$4.9 million, respectively, which consist primarily of costs to successfully defend certain patents. The Company is amortizing these capitalized costs over the respective remaining lives of the patents. Payments received for license fees and royalties associated with patent litigation have been and will continue to be netted against the capitalized patent defense costs upon receipt (see Note 8).

Software development costs are accounted for in accordance with the provisions of Statement of Financial Accounting Standard ("SFAS") No. 86, *Accounting for Costs of Computer Software to be Sold, Leased or Otherwise Marketed* and the American Institute of Certified Public Accountants Statement of Position 98-1, *Accounting for the Costs of Computer Software Developed or Obtained for Internal Use*. The capitalization of software costs includes costs incurred by us in developing products that qualify for capitalization as well as costs to purchase and develop software for internal use. We capitalize costs associated with product development, coding, and testing subsequent to establishing technological feasibility of the product. Technological feasibility is established after completion of a detailed program design or working model. Capitalization of computer software costs ceases upon a product's general availability or release.

Capitalized software development costs are included in intangible assets in the accompanying Consolidated Balance Sheets and are amortized over the estimated useful life of the software product starting from the date of general availability. Amortization expense of \$1.5 million, \$1.1 million, and \$0.8 million related to capitalized costs incurred in developing products in our Metrology segment is included in cost of sales in the accompanying Consolidated Statements of Operations for the years ended December 31, 2008, 2007, and 2006, respectively.

The Company has capitalized certain costs associated with implementing our company-wide integrated applications software, which are included in intangible assets in the accompanying Consolidated Balance Sheets. Such costs are being depreciated over seven years and include consulting fees and employee time spent on software configuration and interface, coding, installation and testing, as well as the purchase of new computer equipment. Data conversion costs, training and maintenance fees associated with this integrated applications software implementation are expensed as incurred.

Long-lived assets, such as property, plant, and equipment, and intangible assets with definite useful lives, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Impairment indicators include, among other conditions, cash flow deficits, a historical or anticipated decline in revenue or operating profit, adverse legal or regulatory developments, and a material decrease in the fair value of some or all of the assets. Assets are grouped at the lowest level for which there are identifiable cash flows that are largely independent of the cash flows generated by other asset groups. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to the estimated undiscounted

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Veeco Instruments Inc. and Subsidiaries

Notes to Consolidated Financial Statements (Continued)

December 31, 2008

future cash flow expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future cash flows, an impairment charge is recognized by the amount by which the carrying amount of the asset exceeds the fair value of the asset.

Depreciation and amortization are generally computed using the straight-line method and are charged to operations over the estimated useful lives of depreciable assets. Leasehold improvements are amortized over the lesser of the useful life of the leasehold improvement and the lease term.

Fair Value of Financial Instruments

We believe the carrying amounts of our financial instruments, including cash and cash equivalents, accounts receivable, accounts payable, accrued expenses, reflected in the consolidated financial statements approximate fair value due to their short term maturities. The fair value of our debt, including current maturities, is estimated using a discounted cash flow analysis, based on the estimated current incremental borrowing rates for similar types of securities, or based on market value for our publicly traded debt (see Note 5).

Derivative Financial Instruments

We use derivative financial instruments to minimize the impact of foreign exchange rate changes on earnings and cash flows. In the normal course of business, our operations are exposed to fluctuations in foreign exchange rates. In order to reduce the effect of fluctuating foreign currencies on short-term foreign currency-denominated intercompany transactions and other known foreign currency exposures, we enter into monthly forward contracts. We do not use derivative financial instruments for trading or speculative purposes. Our forward contracts do not subject us to material risks due to exchange rate movements because gains and losses on these contracts are intended to offset exchange gains and losses on the underlying assets and liabilities; both the forward contracts and the underlying assets and liabilities are marked-to-market through earnings. We conduct our derivative transactions with highly rated financial institutions in an effort to mitigate any material credit risk. The aggregate foreign currency exchange gain (loss) included in determining consolidated results of operations was approximately \$0.1 million, (\$0.5) million and (\$0.3) million in 2008, 2007, and 2006, respectively. Included in the aggregate foreign currency exchange gain (loss) were losses relating to forward contracts of \$1.0 million, \$0.1 million, and \$0.2 million in 2008, 2007, and 2006, respectively. These amounts were recognized and included in other income, net. As of December 31, 2008, approximately \$0.9 million of losses related to forward contracts were included in accrued expenses and these amounts were subsequently paid in January 2009. As of December 31, 2007, approximately \$0.1 million of gains related to forward contracts were included in prepaid expenses and other current assets, and cash in the amount equivalent to such gains was subsequently received in January 2008. On December 27, 2007, we entered into forward contracts for the month of January 2008 for the notional amount of approximately \$7.0 million. The fair values of these contracts at inception were zero, which did not significantly change at December 31, 2007. A monthly forward contract for a notional amount of \$0.5 million for the month of January 2009 was not entered into until January 2009.

Translation of Foreign Currencies

Certain of our international subsidiaries operate primarily using local functional currencies. Foreign currency denominated assets and liabilities are translated into U.S dollars at exchange rates in effect at the balance sheet date, and income and expense accounts and cash flow items are translated at average monthly exchange rates during the respective periods. Net exchange gains or losses resulting

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from the translation of foreign financial statements and the effect of exchange rates on intercompany transactions of a long-term investment nature are recorded as a separate component of stockholders' equity in accumulated other comprehensive income. Any foreign currency gains or losses related to transactions are included in operating results.

Environmental Compliance and Remediation

Environmental compliance costs include ongoing maintenance, monitoring and similar costs. Such costs are expensed as incurred. Environmental remediation costs are accrued when environmental assessments and/or remedial efforts are probable and the cost can be reasonably estimated.

Accumulated Other Comprehensive Income

Our accumulated other comprehensive income of \$7.2 million and \$5.3 million at December 31, 2008 and 2007, respectively, consists primarily of foreign currency translation adjustments.

Research and Development Costs

Research and development costs are charged to expense as incurred and include expenses for the development of new technology and the transition of technology into new products or services.

Warranty Costs

We estimate the costs that may be incurred under the warranty we provide and record a liability in the amount of such costs at the time the related revenue is recognized. Estimated warranty costs are determined by analyzing specific product and historical configuration statistics and regional warranty support costs. Our warranty obligation is affected by product failure rates, material usage, and labor costs incurred in correcting product failures during the warranty period. Unforeseen component failures or exceptional component performance can also result in changes to warranty costs. If actual warranty costs differ substantially from our estimates, revisions to the estimated warranty liability would be required.

Advertising Expense

The cost of advertising is expensed as of the first showing of each advertisement. We incurred \$3.1 million, \$3.3 million, and \$3.5 million in advertising costs during 2008, 2007, and 2006, respectively.

Royalties

We have licensing arrangements with a number of third parties under which we use patents of such third parties. Royalties and license fees expensed under these agreements approximated \$0.5 million, \$2.0 million, and \$1.5 million in 2008, 2007, and 2006, respectively, and are included in cost of sales in our Consolidated Statements of Operations.

Shipping and Handling Costs

Shipping and handling costs are costs that are incurred to move and prepare our products for shipment, and then to move the products to the customer's designated location. These costs are generally comprised of payments to third-party shippers. Shipping and handling costs are included in cost of sales in our consolidated statements of operations.

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Notes to Consolidated Financial Statements (Continued)

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Share-Based Compensation

Share-based compensation cost is measured at the grant date, based on the fair value of the award, and is recognized as expense over the employee requisite service period. In order to determine the fair value of stock options on the date of grant, we apply the Black-Scholes option-pricing model. Inherent in the model are assumptions related to risk-free interest rate, dividend yield, expected stock-price volatility, and option life.

The risk-free rate assumed in valuing the options is based on the U.S. Treasury yield curve in effect at the time of grant for the expected term of the option. The dividend yield assumption is based on our historical and future expectation of dividend payouts. While the risk-free interest rate and dividend yield are less subjective assumptions, typically based on factual data derived from public sources, the expected stock-price volatility and option life assumptions require a level of judgment which make them critical accounting estimates.

We use an expected stock-price volatility assumption that is a combination of both historical volatility, calculated based on the daily closing prices of our common stock over a period equal to the expected term of the option and implied volatility, utilizing market data of actively traded options on our common stock, which are obtained from public data sources. We believe that the historical volatility of the price of our common stock over the expected term of the option is a strong indicator of the expected future volatility and that implied volatility takes into consideration market expectations of how future volatility will differ from historical volatility. Accordingly, we believe a combination of both historical and implied volatility provides the best estimate of the future volatility of the market price of our common stock.

The expected term, representing the period of time that options granted are expected to be outstanding, is estimated using a lattice-based model incorporating historical post vest exercise and employee termination behavior.

We estimate forfeitures using its historical experience, which is adjusted over the requisite service period based on the extent to which actual forfeitures differ, or are expected to differ, from such estimates. Because of the significant amount of judgment used in these calculations, it is reasonably likely that circumstances may cause the estimate to change.

With regard to the weighted-average option life assumption, we consider the exercise behavior of past grants and model the pattern of aggregate exercises.

Recent Accounting Pronouncements

In September 2006, the FASB issued Statement of Financial Accounting Standards No. 157, "Fair Value Measurements" ("SFAS No. 157"). SFAS No. 157 defines fair value, establishes a framework for measuring fair value, and enhances fair value measurement disclosure. In February 2008, the FASB issued FSP 157-2, "Effective Date of FASB Statement No. 157" ("FSP 157-2"). FSP 157-2 delays the effective date of SFAS No. 157 for all non-financial assets and non-financial liabilities, except for items that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually), until the beginning of the first quarter of fiscal 2009. The measurement and disclosure requirements related to financial assets and financial liabilities were effective for us beginning in the first quarter of fiscal 2008. The adoption of SFAS No. 157 for financial assets and financial liabilities did not have a significant impact on our consolidated financial statements. We are currently evaluating the impact that SFAS No. 157 will have on our consolidated financial statements when it is applied to non-financial assets and non-financial liabilities beginning in the first quarter of 2009, including periodic

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fair value measurements for goodwill, long-lived assets and restructuring liabilities. The resulting fair values calculated under SFAS No. 157 after adoption may be different from the fair values that would have been calculated under previous guidance.

In December 2007, the FASB issued Statement of Financial Accounting Standards No. 141 (revised 2007), *Business Combinations* ("SFAS 141(R)") and Statement of Financial Accounting Standards No. 160, *Noncontrolling Interests in Consolidated Financial Statements - an Amendment of ARB No. 51* ("SFAS 160"). Under SFAS 141(R), an acquiring entity will be required to recognize all the assets acquired and liabilities assumed in a transaction at the acquisition date at fair value with limited exceptions. SFAS 141(R) also changes the accounting treatment for certain other items that relate to business combinations. SFAS 141(R) applies prospectively to business combinations for which the acquisition date is on or after January 1, 2009. The purpose of SFAS 160 is to improve the relevance, comparability, and transparency of the financial information that a reporting entity provides in its consolidated financial statements. The most significant provisions of this statement result in changes to the presentation of noncontrolling interests in the consolidated financial statements. SFAS 160 is effective for fiscal years beginning after December 15, 2008. The adoption of this statement will impact the manner in which we present noncontrolling interests, but will not impact our consolidated financial position or results of operations.

In March 2008, the FASB issued Statement of Financial Accounting Standards No. 161, *Disclosures about Derivative Instruments and Hedging Activities* ("SFAS 161"). SFAS 161 changes the disclosure requirements for derivative instruments and hedging activities. Entities are required to provide disclosures about (a) how and why an entity uses derivative instruments, (b) how derivative instruments and related hedged items are accounted for under FASB Statement No. 133, *Accounting for Derivative Instruments and Hedging Activities*, and its related interpretations, and (c) how derivative instruments and related hedged items affect an entity's financial position, financial performance, and cash flows. SFAS 161 is effective for fiscal years and interim periods beginning after November 15, 2008 and requires comparative disclosures only for periods subsequent to initial adoption. The adoption of the provisions of SFAS 161 will not impact our consolidated financial position or results of operations.

In May 2008, the FASB issued FASB Staff Position No. APB 14-1, *Accounting for Convertible Debt Instruments That May Be Settled in Cash upon Conversion (Including Partial Cash Settlement)* ("FSP APB 14-1"). The guidance is effective for fiscal years beginning after December 15, 2008, and interim periods within those years. FSP APB 14-1 will require issuers of convertible debt that can be settled in cash to separately account for (i.e. bifurcate) a portion of the debt associated with the conversion feature and reclassify this portion to stockholders' equity. The liability portion, which represents the fair value of the debt without the conversion feature, is accreted to its face value over the life of the debt using the effective interest method, with the accretion recorded to interest expense. FSP APB 14-1 will be applied retrospectively to all periods presented. The cumulative effect of the change in accounting principle on periods prior to those presented will be recognized as of the beginning of the first period presented. We expect the adoption of FSP APB 14-1 to have a material effect on our consolidated financial position, results of operations, and earnings per share. During the second quarter of 2007, we issued new convertible subordinated notes (the "New Notes") that may be settled in cash upon conversion and are subject to the requirements of FSB APB 14-1. As of the adoption of FSP APB 14-1 in the beginning of 2009, effective as of date of issuance of the New Notes, we will reclassify approximately \$16.3 million from long-term debt to additional paid-in capital, and our accumulated deficit will reflect approximately \$4.8 million of debt accretion that occurred between the issuance date of the New Notes and the adoption date. Approximately \$2.8 to \$3.3 million of additional interest expense will be recorded annually from the adoption date through the maturity date of the New Notes. This additional interest expense will not require the use of cash.

Table of Contents**Veeco Instruments Inc. and Subsidiaries****Notes to Consolidated Financial Statements (Continued)****December 31, 2008****2. (Loss) Earnings Per Common Share**

The following table sets forth basic and diluted net (loss) income per common share and the reconciliation of weighted average shares outstanding and diluted weighted average shares outstanding (share amounts in thousands):

| | Year ended December 31, | | |
|--|-------------------------|---------------|---------------|
| | 2008 | 2007 | 2006 |
| Net (loss) income per common share | \$ (2.27) | \$ (0.56) | \$ 0.49 |
| Diluted net (loss) income per common share | \$ (2.27) | \$ (0.56) | \$ 0.48 |
| Weighted average shares outstanding | 31,347 | 31,020 | 30,492 |
| Dilutive effect of stock options and restricted stock awards and units | | | 567 |
| Diluted weighted average shares outstanding | 31,347 | 31,020 | 31,059 |

(Loss) earnings per common share is computed using the weighted average number of common shares outstanding during the period. Diluted (loss) earnings per common share is computed using the weighted average number of common shares and common equivalent shares outstanding during the period. The effect of approximately 170,000 and 326,000 common equivalent shares for the years ended December 31, 2008 and 2007, respectively, were excluded from the diluted weighted average shares outstanding due to the net losses sustained for these periods.

In December 2001 and January 2002, we issued a total of \$220.0 million of unsecured 4.125% convertible subordinated notes due December 2008, which were convertible, at the option of the holder, at any time on or prior to maturity, into shares of common stock at a conversion price of \$38.51 per share. During the first quarter of 2006, we repurchased \$20.0 million of the notes, and for the year ended December 31, 2006, the assumed conversion of the remaining \$200.0 million of notes was 5.3 million common equivalent shares, which were anti-dilutive and therefore excluded from the diluted weighted average shares outstanding for that period. The repurchase and the exchange reduced the effect on earnings per share of the assumed conversion of the Old Notes (as defined below), which was calculated using the "if converted" method of accounting.

During 2007, we repurchased an additional \$56.0 million of these notes, and issued a new series of 4.125% convertible subordinated notes (the "New Notes") due April 15, 2012, pursuant to privately negotiated exchange agreements with certain holders of our outstanding 4.125% convertible subordinated notes (the "Old Notes"). In total, we exchanged \$118.8 million of Old Notes for \$117.8 million of New Notes. Of the original notes, \$25.2 million remained outstanding subsequent to the exchange. For the year ended December 31, 2007, the weighted-average effect of the assumed conversion of the Old Notes was approximately 1.8 million shares, and at December 31, 2007, the effect of the assumed conversion of the Old Notes was approximately 0.6 million shares. The convertible shares were anti-dilutive and, therefore, were not included in the weighted shares outstanding for the year ended December 31, 2007. During the fourth quarter of 2008, we paid the remaining \$25.2 million of Old Notes outstanding.

The New Notes meet the criteria for determining the effect of the assumed conversion using the treasury stock method of accounting, as long as we have the ability and the intent to settle the principal amount of the New Notes in cash. Under the terms of the New Notes, we may pay the principal

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Notes to Consolidated Financial Statements (Continued)

December 31, 2008

amount of converted New Notes in cash or in shares of common stock. We have indicated that we intend to pay such amounts in cash. Using the treasury stock method, the impact of the assumed conversion of the New Notes was anti-dilutive for the years ended December 31, 2008 and 2007, as the average stock price was below the conversion price of \$27.23 for the period. The effect of the assumed converted shares is dependent on the stock price at the time of the conversion. The maximum number of common equivalent shares issuable upon conversion at December 31, 2007 was approximately 6.0 million. During the fourth quarter of 2008, we repurchased \$12.2 million of New Notes, and for the year ended December 31, 2008, the assumed conversion of the remaining \$105.6 million of these notes was 5.3 million common equivalent shares. See Note 5 for further details on our debt.

3. Business Combinations

Mill Lane Engineering Co., Inc.

On May 22, 2008, we acquired Mill Lane Engineering Co., Inc. ("Mill Lane"), a privately held manufacturer of web coating systems for flexible solar panels, for a purchase price of \$11.0 million, net of cash acquired, plus potential future earn-out payments of up to \$19.0 million (representing additional purchase price) contingent upon the future achievement of certain operating performance criteria. Fees related to the acquisition were \$0.7 million. Mill Lane is based in Lowell, Massachusetts and at the time of acquisition had approximately 20 employees. Mill Lane has been renamed Veeco Solar and its financial results are included in our LED & Solar Process Equipment segment (see Note 9) as of the acquisition date. We have determined that this acquisition does not constitute a material business combination and therefore are not including pro forma financial statements in this report.

As of December 31, 2008, we have accrued \$9.6 million for our earn-out obligation due to the former owners of Mill Lane resulting from the achievement of certain operating performance criteria earned through the end of the fourth quarter of 2008. Payment of this earn-out will be made in the first quarter of 2009.

Fluens Corporation

In 2006, we invested \$0.5 million to purchase 19.9% of the common stock of Fluens Corporation ("Fluens"). Approximately 31% of Fluens is owned by one of our Senior Vice Presidents. Veeco and Fluens have jointly developed a next-generation process for high-rate deposition of aluminum oxide for data storage applications. If this development is successful and upon the satisfaction of certain additional conditions by May 2009, we will be obligated to purchase the balance of the outstanding stock of Fluens for \$3.5 million plus an earn-out payment based on future performance. In addition, until May 2009 we may elect to waive these conditions and purchase the remaining 80.1% of outstanding stock of Fluens on the same terms.

We determined that Fluens is a variable interest entity and that we are its primary beneficiary as defined by FIN 46(R), *Consolidation of Variable Interest Entities (revised December 2003) an interpretation of ARB No. 51*, which requires us to consolidate the results of Fluens' operations from the acquisition date. As such, Fluens' results of operations for the years ended December 31, 2008 and 2007 and for the period from May 1, 2006 through December 31, 2006, are included within the Data Storage Process Equipment segment in the accompanying Consolidated Statements of Operations, and we have attributed the 80.1% portion of Fluens that we do not own to noncontrolling interest in our Consolidated Financial Statements. As part of the acquisition accounting, we recorded \$1.2 million of

Table of Contents**Veeco Instruments Inc. and Subsidiaries****Notes to Consolidated Financial Statements (Continued)****December 31, 2008**

in-process technology, which was written off during 2006. Fluens' results of operations prior to the acquisition were not material to the Consolidated Statements of Operations.

As of December 31, 2008 and 2007, the balance of noncontrolling interest on the balance sheet was \$0.8 million and \$1.0 million. The total net loss attributable to the noncontrolling interest in Fluens for the years ended December 31, 2008, 2007, and 2006 was \$0.2 million, \$0.6 million, and \$1.4 million, respectively.

4. Balance Sheet Information (in thousands)*Inventories*

| | December 31, | |
|-----------------|---------------------|-------------|
| | 2008 | 2007 |
| Raw materials | \$ 57,815 | \$ 58,157 |
| Work in process | 28,733 | 27,330 |
| Finished goods | 8,382 | 13,107 |
| | \$ 94,930 | \$ 98,594 |

Property, Plant, and Equipment

| | December 31, | | Estimated Useful Lives |
|--|---------------------|-------------|-----------------------------------|
| | 2008 | 2007 | |
| Land | \$ 9,274 | \$ 9,274 | |
| Buildings and improvements | 43,743 | 41,386 | 10-40 years |
| Machinery and equipment | 105,194 | 102,997 | 3-10 years |
| Leasehold improvements | 5,163 | 7,404 | 3-7 years |
| Gross property, plant, and equipment at cost | 163,374 | 161,061 | |
| Less accumulated depreciation and amortization | 99,002 | 94,919 | |
| Net property, plant, and equipment at cost | \$ 64,372 | \$ 66,142 | |

For the years ended December 31, 2008, 2007, and 2006, depreciation expense was \$12.9 million, \$13.6 million, and \$13.2 million, respectively.

Goodwill and Indefinite-Lived Intangible Assets

In accordance with SFAS No. 142, *Goodwill and Other Intangible Assets*, we conducted our annual impairment test of goodwill and indefinite-lived intangible assets during the fourth quarters of 2008 and 2007, using October 1st as our measurement date, and utilizing a discounted future cash flow approach as described in Note 1. This was consistent with the approach used in previous years. Based upon the results of such assessments, we determined that no goodwill and indefinite-lived intangible asset impairment existed in any of its reporting units, as of October 1, 2008 and 2007, respectively.

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During the fourth quarter of 2008, the economic downturn became more significant and wide ranging as credit availability tightened and overall business and economic conditions deteriorated. It became apparent that the revenue, profitability, growth and other assumptions we used in our fair value determination at October 1, 2008, required revisions. Additionally, we realized a significant

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Table of Contents**Veeco Instruments Inc. and Subsidiaries****Notes to Consolidated Financial Statements (Continued)****December 31, 2008**

decline in our market capitalization which resulted in the carrying value of our net assets exceeding our market capitalization. Given these factors we were required to perform an interim goodwill impairment assessment as of December 31, 2008.

In performing the impairment assessment as of December 31, 2008, we updated our financial forecast and growth rate assumptions based upon current market conditions and determined that the carrying amounts of our Data Storage Process Equipment and AFM reporting units were in excess of their respective estimated fair values. As such, the Company was required to allocate the estimated fair value to all assets and liabilities in these two reporting units and determined there was no implied value related to goodwill or indefinite-lived intangible assets. We recorded an asset impairment charge of \$52.3 million in the fourth quarter of 2008 relating to goodwill, which consisted of \$30.4 million in our Data Storage Process Equipment reporting unit and \$21.9 million in our AFM reporting unit, and recorded a charge of \$5.0 million in our Data Storage Process Equipment reporting unit relating to indefinite-lived intangible assets, pertaining to trademarks.

Changes in our goodwill during 2008 and 2007 are as follows (in thousands):

| | 2008 | 2007 |
|---------------------------|------------|------------|
| Balance as of January 1 | \$ 100,898 | \$ 100,898 |
| Impairment | (52,312) | |
| Mill Lane acquisition | 930 | |
| Mill Lane earnout | 9,644 | |
| Balance as of December 31 | \$ 59,160 | \$ 100,898 |

As of December 31, 2008 and 2007, we had \$2.9 million and \$7.9 million, respectively, of indefinite-lived intangible assets consisting of trademarks and tradenames, which are included in the Consolidated Balance Sheets in the caption Intangible assets, net. See Note 8 for a summary of the asset impairment charge.

Intangible Assets

| | December 31, 2008 | | | December 31, 2007 | | |
|-------------------------------|-------------------------|-------------------------------|-------------------------------|-------------------------|-------------------------------|-------------------------------|
| | Purchased technology | Other intangible assets | Total intangible assets | Purchased technology | Other intangible assets | Total intangible assets |
| Gross intangible assets | \$ 111,033 | \$ 49,113 | \$ 160,146 | \$ 108,588 | \$ 53,426 | \$ 162,014 |
| Less accumulated amortization | (92,094) | (29,234) | (121,328) | (72,481) | (29,886) | (102,367) |
| Intangible assets, net | \$ 18,939 | \$ 19,879 | \$ 38,818 | \$ 36,107 | \$ 23,540 | \$ 59,647 |

The estimated aggregate amortization expense for intangible assets with definite useful lives for each of the next five fiscal years is as follows (in thousands):

| | |
|------|---------|
| 2009 | \$8,696 |
| 2010 | 8,100 |
| 2011 | 5,387 |
| 2012 | 3,566 |
| 2013 | 2,029 |

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Notes to Consolidated Financial Statements (Continued)

December 31, 2008

In accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, we performed an analysis as of December 31, 2008 of our definite-lived intangible and long-lived assets due to impairment indicators noted during the fourth quarter of 2008, pertaining to our Data Storage Process Equipment and AFM reporting units. Indications of impairment included deteriorating economic conditions, reduced orders, reduced revenue projections, and losses in our AFM reporting unit and a significant reduction in our market capitalization. No impairment indicators were present in the other two reporting units. For the purposes of recognition and measurement of an impairment loss, a long-lived asset or assets are grouped with other assets and liabilities at the lowest level for which identifiable cash flows are largely independent of cash flows of other assets and liabilities. For the Data Storage Process Equipment reporting unit the long-lived assets were grouped at one level below the reporting unit and at the reporting unit level for AFM. The recoverability of long-lived asset groups was measured by a comparison of the carrying amount of the assets to the estimated undiscounted future cash flows expected to be generated by such assets. Developing the estimate of the undiscounted future cash flows requires significant judgment and projection of future financial performance, including projection of future revenue and expenses, working capital requirements and the time period in which the assets will be utilized. We used the economic life of the primary asset in the long-lived asset group to determine the forecast period of the future cash flows. For the AFM reporting unit, we analyzed long-lived assets with a carrying value of \$27.8 million (consisting of \$16.6 million of property, plant and equipment and \$11.2 million of intangible assets principally patent defense and capitalized software costs) at December 31, 2008 for impairment and determined that no impairment existed. For the Data Storage Process Equipment reporting unit, we analyzed long-lived assets with a carrying value of \$38.6 million at December 31, 2008 for impairment and determined that no impairment existed for one of the identifiable long-lived asset groups with a carrying value of \$12.8 million (consisting principally of property, plant and equipment). Since the carrying amount of long-lived assets within the other identifiable asset group exceeded the estimated future cash flows of such assets, an impairment existed. This long-lived asset group consists of intangible assets of \$24.0 million (primarily purchased technology) and \$1.8 million of property, plant and equipment pertaining to its mechanical processing product line of Saws and Lappers. The amount of the impairment is determined by comparing the fair value of the long-lived asset group to the carrying value. As permitted under SFAS 144 we determined the fair value of our long-lived asset groups utilizing a discounted cash flow approach applying a risk free interest rate. The carrying value of the long-lived assets exceeded the fair value by \$15.7, million which was recorded as an impairment charge and was allocated on a pro rata basis to the long-lived assets with \$14.6 million allocated to intangible assets and \$1.1 million allocated to property, plant and equipment. We currently expect to recover the remaining carrying value of the asset group of \$10.1 million by cash flows generated by the use of the assets over their remaining useful life. See Note 8 for a summary of the asset impairment charge.

Table of Contents**Veeco Instruments Inc. and Subsidiaries****Notes to Consolidated Financial Statements (Continued)****December 31, 2008***Accrued Expenses*

| | December 31, | |
|---|---------------------|-------------|
| | 2008 | 2007 |
| Payroll and related benefits | \$20,059 | \$17,066 |
| Sales, use, and other taxes | 2,776 | 3,846 |
| Customer deposits and advanced billings | 18,021 | 19,558 |
| Warranty | 6,892 | 6,502 |
| Restructuring reserve | 3,568 | 4,318 |
| Contingent earn-out payment | 9,644 | |
| Other | 6,004 | 8,911 |
| | \$66,964 | \$60,201 |

Accrued Warranty

We estimate the costs that may be incurred under the warranty we provide and recognize a liability in the amount of such costs at the time the related revenue is recognized. Factors that affect our warranty liability include product failure rates, material usage, and labor costs incurred in correcting product failures during the warranty period. Changes in our warranty liability during the period are as follows:

| | 2008 | 2007 |
|-------------------------------------|-------------|-------------|
| Balance as of beginning of year | \$ 6,502 | \$ 7,118 |
| Warranties issued during the period | 4,783 | 5,913 |
| Settlements made during the period | (4,393) | (6,529) |
| Balance as of end of year | \$ 6,892 | \$ 6,502 |

5. Debt*Credit Agreement*

In February 2009, we entered into an amendment to our existing credit agreement with HSBC Bank USA, National Association ("HSBC"), as administrative agent, and the lenders named therein (as amended, the "Credit Agreement"). As part of the amendment, we reduced the amount of the revolving credit facility, modified certain existing covenants and added certain new covenants. In addition, the commitment fees and interest rate were increased. As amended, the Credit Agreement provides for revolving credit borrowings of up to \$30.0 million. The annual interest rate under the Credit Agreement is a floating rate equal to the prime rate of the agent bank plus 2.0%. A LIBOR-based interest rate option is also provided. Borrowings may be used for general corporate purposes, including working capital requirements. The Credit Agreement contains certain restrictive covenants which include the maintenance of minimum cash balances and limitations with respect to incurrence of indebtedness, the payment of dividends, long-term leases, investments, mergers, acquisitions, consolidations and sales of assets. In addition, under the Credit Agreement, we are required to satisfy certain financial tests, including minimum profitability levels. As of the effective date of the amendment, we were in compliance with all covenants. Substantially all of our assets and those of our material domestic subsidiaries, other than real estate, have been pledged to secure our obligations

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under the Credit Agreement. The revolving credit facility under the Credit Agreement expires on March 31, 2012. In the first quarter of 2009, we will recognize an expense of \$0.2 million representing the amount of deferred financing fees equal to the portion of the revolving credit facility which was terminated in connection with the amendment. As of December 31, 2008 and 2007, there were no borrowings outstanding under the Credit Agreement and letters of credit outstanding were approximately \$0.4 million. Interest expense associated with the Credit Agreement recorded during 2008 and 2007 was approximately \$0.3 million and \$0.2 million, respectively.

Long-term Debt

Long-term debt is summarized as follows (in thousands):

| | December 31, | |
|-------------------------------|---------------------|-------------|
| | 2008 | 2007 |
| Convertible subordinated debt | \$ 105,574 | \$ 142,978 |
| Mortgage notes payable | 3,291 | 3,472 |
| Other | | 135 |
| | 108,865 | 146,585 |
| Less current portion | 196 | 25,550 |
| | \$ 108,669 | \$ 121,035 |

Convertible Subordinated Debt

On December 21, 2001, we issued \$200.0 million of unsecured 4.125% convertible subordinated notes due December 2008 ("Old Notes"), and on January 3, 2002, we issued an additional \$20.0 million of Old Notes pursuant to the exercise of an over-allotment option. The Old Notes were convertible, at the option of the holder, at any time on or prior to maturity, into shares of common stock at a conversion price of \$38.51 per share. We paid interest on the Old Notes on June 21 and December 21 of each year.

During 2006, we repurchased \$20.0 million of Old Notes, reducing the amount outstanding from \$220.0 million to \$200.0 million. During 2007, we repurchased an additional \$56.0 million of Old Notes, reducing the amount of Old Notes outstanding from \$200.0 million to \$144.0 million. As a result of these repurchases, we recorded a net gain from the extinguishment of debt of \$0.7 million in 2007.

During the second quarter of 2007, we issued new convertible subordinated notes (the "New Notes") pursuant to privately negotiated exchange agreements with certain holders of the Old Notes. The New Notes bear interest at 4.125% per annum and mature on April 15, 2012. Under these agreements, such holders agreed to exchange \$118.8 million aggregate principal amount of Old Notes for approximately \$117.8 million aggregate principal amount of New Notes. Following the exchange transactions, approximately \$25.2 million of Old Notes remained outstanding. A gross gain of approximately \$1.0 million was recorded on the exchange transactions offset by the write-off of approximately \$1.0 million of unamortized deferred financing costs associated with the Old Notes.

The New Notes are initially convertible into 36.7277 shares of common stock per \$1,000 principal amount of New Notes (equivalent to a conversion price of \$27.23 per share or a premium of 38% over the closing market price for our common stock on April 16, 2007). Holders may convert the New Notes

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at any time during the period beginning on January 15, 2012 through the close of business on the second day prior to April 15, 2012 and earlier upon the occurrence of certain events including our common stock trading at prices 130% over the conversion price for a specified period. We pay interest on these notes on April 15 and October 15 of each year. The New Notes are unsecured and are effectively subordinated to all of our senior and secured indebtedness and to all indebtedness and other liabilities of our subsidiaries.

During the fourth quarter of 2008, we paid off the remaining \$25.2 million of Old Notes outstanding. In addition, we repurchased \$12.2 million aggregate of the New Notes for \$7.2 million in cash, of which \$7.1 million related to principal and \$0.1 million related to accrued interest, reducing the amount outstanding from \$117.8 million to \$105.6 million. A gross gain of approximately \$5.1 million was recorded on these repurchases offset by the write-off of approximately \$0.1 million of unamortized deferred financing costs associated with the New Notes.

At December 31, 2008, \$105.6 million of the New Notes were outstanding with a fair market value of approximately \$68 million. At December 31, 2007, \$25.2 million of the Old Notes and \$117.8 million of the New Notes were outstanding with a fair market value of approximately \$25 million and \$112 million, respectively.

Mortgage Notes Payable

Long-term debt at December 31, 2008, also includes a mortgage note payable, which is secured by certain land and buildings with carrying amounts aggregating approximately \$5.3 million and \$5.4 million at December 31, 2008 and December 31, 2007, respectively. The mortgage note payable (\$3.3 million at December 31, 2008 and \$3.5 million at December 31, 2007) bears interest at an annual rate of 7.91%, with the final payment due on January 1, 2020. The fair market value of this note at December 31, 2008 and 2007 was approximately \$3.6 million and \$3.8 million, respectively.

Maturity of Long-term Debt

Long-term debt matures as follows (in thousands):

| | |
|----------------------|------------|
| 2009 | \$ 196 |
| 2010 | 212 |
| 2011 | 229 |
| 2012 | 105,822 |
| 2013 | 268 |
| Thereafter | 2,138 |
| | 108,865 |
| Less current portion | 196 |
| | \$ 108,669 |

6. Stock Compensation Plans and Shareholders' Equity*Stock Option and Restricted Stock Plans*

We have several stock option and restricted stock plans. The Veeco Instruments Inc. 2000 Stock Incentive Plan, as amended (the "2000 Plan"), was approved by the Board of Directors and

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Veeco Instruments Inc. and Subsidiaries

Notes to Consolidated Financial Statements (Continued)

December 31, 2008

shareholders in May 2000. The 2000 Plan provides for the grant to officers and key employees of up to 8,530,000 stock awards, either in the form of options to purchase shares of our common stock or restricted stock awards. Up to 1,700,000 of the awards authorized under the 2000 Plan may be issued in the form of restricted stock. As of December 31, 2008, there are 525,943 shares available for future grants. Stock awards granted pursuant to the 2000 Plan expire after seven years and generally vest over a three-year to five-year period following the grant date. In addition, the 2000 Plan provides for automatic annual grants of 5,000 shares of restricted stock to each member of our Board of Directors who is not an employee. As of December 31, 2008, there are 4,981,917 options outstanding under this plan.

The Veeco Instruments Inc. 2000 Stock Option Plan for Non-Officer Employees (the "Non-Officer Plan") was approved by the Board of Directors in October 2000. The Non-Officer Plan provided for the grant of stock options to non-officer employees to purchase shares of our common stock. Stock options granted pursuant to the Non-Officer Plan become exercisable over a three-year period following the grant date and expire after seven years. As of December 31, 2008, there are 32,700 options outstanding under the Non-Officer Plan.

The Veeco Instruments Inc. Amended and Restated 1992 Employees' Stock Option Plan (the "1992 Plan") provided for the grant to officers and key employees of stock options to purchase shares of our common stock. Stock options granted pursuant to the 1992 Plan became exercisable over a three-year period following the grant date and expire after ten years. As of December 31, 2008, there are 324,409 stock options outstanding under this plan.

The Veeco Instruments Inc. 1994 Stock Option Plan for Outside Directors, as amended, (the "Directors' Option Plan"), provided for automatic annual grants of stock options to each member of our Board of Directors who is not an employee. Such options are exercisable immediately and expire after ten years. As of December 31, 2008, there are 84,000 options outstanding under the 1994 Stock Option Plan for Outside Directors.

The Non-Officer Plan, the 1992 Plan and the Directors' Option Plan have been frozen; and, thus, there are no options available for future grant as of December 31, 2008 under these plans.

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In addition to the plans described above, we assumed certain stock option plans and agreements relating to the merger in September 2001 with Applied Epi, Inc. ("Applied Epi"). These stock option plans do not have options available for future grants. Options granted under these plans expire after ten years from the date of grant. Options granted under two of the plans vested over three years and options granted under one of the plans vested immediately. As of December 31, 2008, there are 145,342 options outstanding under the various Applied Epi plans.

In May 2000, we assumed certain stock option plans and agreements related to CVC, Inc. ("CVC") and Commonwealth Scientific Corporation, a subsidiary of CVC, which were in effect prior to the merger with Veeco. These plans do not have options available for future grants. The options granted under these plans generally vested over a three to five year period and expire five to ten years from the date of grant. As of December 31, 2008, there are 3,726 options outstanding under the various CVC and Commonwealth Scientific Corporation plans.

Share-Based Compensation and Stock Option and Restricted Stock Activity

The following compensation expense was included in the consolidated statements of operations for the years ended December 31, 2008, 2007, and 2006 (in thousands):

| | Years ended December 31, | | |
|----------------------------------|---------------------------------|-------------|-------------|
| | 2008 | 2007 | 2006 |
| Share-based compensation expense | \$ 10,526 | \$ 5,620 | \$ 2,219 |

For the year ended December 31, 2008, total share-based compensation expense included a charge of \$3.0 million for the acceleration of equity awards associated with a mutually agreed-upon termination of the employment agreement with our former CEO (who currently remains as Chairman of the Board of Directors) following the successful completion of the CEO transition. For the year ended December 31, 2007, total compensation expense included a charge of \$0.6 million for the modification of equity awards associated with termination agreements made with five key employees.

As of December 31, 2008, the total unrecognized compensation cost related to nonvested stock awards and option awards is \$8.8 million and \$6.6 million, respectively, and the related weighted average period over which it is expected that such unrecognized compensation costs will be recognized is approximately 2.3 years both for the nonvested stock awards and for option awards.

The fair value of each option granted during the years ended December 31, 2008, 2007, and 2006, was estimated on the date of grant using the Black-Scholes option-pricing model with the following assumptions:

| | Year ended December 31, | | |
|--|--------------------------------|-------------|-------------|
| | 2008 | 2007 | 2006 |
| Weighted-average expected stock-price volatility | 39% | 39% | 40% |
| Weighted-average expected option life | 3 years | 3 years | 3 years |
| Average risk-free interest rate | 3.14% | 4.60% | 4.96% |
| Average dividend yield | 0% | 0% | 0% |

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A summary of our restricted stock awards including restricted stock units as of December 31, 2008, is presented below:

| | Shares (000s) | Weighted- Average Grant-Date Fair Value |
|--|------------------|--|
| Nonvested at December 31, 2007 | 680 | \$ 19.50 |
| Granted | 414 | 16.74 |
| Vested | (378) | 19.61 |
| Forfeited (including cancelled awards) | (37) | 17.91 |
| Nonvested at December 31, 2008 | 679 | \$ 17.84 |

During the year ended December 31, 2008, we granted 334,170 shares of restricted common stock and 40,150 restricted stock units to key employees, which vest over three years, and in May 2008, we granted 40,000 shares of restricted common stock to the non-employee members of the Board of Directors, which vest over a period of one year. The vested shares were reduced by 61,574 shares of restricted stock which were cancelled in 2008 due to employees electing to receive fewer shares in lieu of paying withholding taxes. The total fair value of shares that vested during the period was \$7.4 million.

A summary of our stock option plans as of and for the year ended December 31, 2008, is presented below:

| | Shares (000s) | Weighted-Average Exercise Price | Aggregate Intrinsic Value (000s) | Weighted- Average Remaining Contractual Life (in years) |
|--|------------------|------------------------------------|---|--|
| Outstanding at December 31, 2007 | 5,672 | \$ 23.04 | | |
| Granted | 1,286 | 16.98 | | |
| Exercised | (67) | 10.15 | | |
| Forfeited (including cancelled options) | (1,319) | 29.42 | | |
| Outstanding at December 31, 2008 | 5,572 | \$ 20.29 | \$ 344 | 3.3 |
| Options exercisable at December 31, 2008 | 3,997 | \$ 21.37 | \$ 344 | 2.3 |

The weighted-average grant date fair value of stock options granted for the years ended December 31, 2008, 2007, and 2006 was \$5.26, \$5.68, and \$7.45, respectively, per option. The total intrinsic value of stock options exercised during the years ended December 31, 2008, 2007, and 2006 was \$0.4 million, \$0.9 million, and \$4.5 million, respectively.

Table of Contents**Veeco Instruments Inc. and Subsidiaries****Notes to Consolidated Financial Statements (Continued)****December 31, 2008**

The following table summarizes information about stock options outstanding at December 31, 2008:

| Range of Exercise Prices | Options Outstanding | | | Options Exercisable | |
|--------------------------|--|--|---------------------------------|--|---------------------------------|
| | Number Outstanding at December 31, 2008 (000s) | Weighted-Average Remaining Contractual Life (in years) | Weighted-Average Exercise Price | Number Exercisable at December 31, 2008 (000s) | Weighted-Average Exercise Price |
| \$0.27 | 57 | 2.0 | \$ 0.27 | 57 | \$ 0.27 |
| 6.51-9.69 | 40 | 6.9 | 8.10 | | |
| 10.26-15.35 | 198 | 4.3 | 14.60 | 122 | 14.66 |
| 15.48-22.75 | 4,450 | 3.6 | 18.91 | 3,011 | 19.41 |
| 23.61-35.00 | 722 | 1.5 | 28.18 | 702 | 28.31 |
| 36.05-48.75 | 76 | 1.2 | 47.80 | 76 | 47.80 |
| 54.35-72.00 | 29 | 1.7 | 57.11 | 29 | 57.11 |
| | 5,572 | 3.3 | \$ 20.29 | 3,997 | \$ 21.37 |

Shares Reserved for Future Issuance

As of December 31, 2008, we have reserved the following shares for future issuance related to:

| | |
|--|-------------------|
| Issuance upon exercise of stock options and grants of restricted stock | 6,656,067 |
| Issuance upon conversion of subordinated debt | 5,350,935 |
| Total shares reserved | 12,007,002 |

Preferred Stock

Our Board of Directors has authority under our Certificate of Incorporation to issue shares of preferred stock with voting and economic rights to be determined by the Board of Directors.

7. Income Taxes

(Loss) income before income taxes and noncontrolling interest in the accompanying Consolidated Statements of Operations consists of (in thousands):

| | Year ended December 31, | | |
|----------|-------------------------|------------|-----------|
| | 2008 | 2007 | 2006 |
| Domestic | \$(78,786) | \$(23,946) | \$ 4,789 |
| Foreign | 9,385 | 9,610 | 13,729 |
| | \$(69,401) | \$(14,336) | \$ 18,518 |

Table of Contents**Veeco Instruments Inc. and Subsidiaries****Notes to Consolidated Financial Statements (Continued)****December 31, 2008**

Significant components of the provision for income taxes are presented below (in thousands):

| | Year ended December 31, | | |
|--|-------------------------|-----------------|-----------------|
| | 2008 | 2007 | 2006 |
| Current: | | | |
| Federal | \$ (360) | \$ (13) | \$ 227 |
| Foreign | 1,078 | 2,239 | 3,310 |
| State | 199 | 221 | 168 |
| Total current provision for income taxes | 917 | 2,447 | 3,705 |
| Deferred: | | | |
| Federal | 437 | 2,188 | 77 |
| Foreign | 463 | (83) | 305 |
| State | 75 | (901) | 872 |
| Total deferred provision for income taxes | 975 | 1,204 | 1,254 |
| Total provision for income taxes | \$ 1,892 | \$ 3,651 | \$ 4,959 |

The following is a reconciliation of the income tax (benefit) provision computed using the Federal statutory rate to our actual income tax provision (in thousands):

| | Year ended December 31, | | |
|--|-------------------------|-----------------|-----------------|
| | 2008 | 2007 | 2006 |
| Income tax (benefit) provision at U.S. statutory rates | \$ (24,290) | \$ (5,018) | \$ 6,481 |
| State income tax benefit (net of federal benefit) | (1,128) | (761) | 981 |
| Goodwill impairment | 13,169 | | |
| Nondeductible expenses | 228 | 250 | 263 |
| Noncontrolling interest in acquisition | 495 | 219 | 594 |
| Equity compensation | 2,616 | 734 | 297 |
| Nondeductible compensation | 1,473 | 181 | |
| Research and development tax credit | (1,031) | (1,341) | (23) |
| Benefit of extraterritorial income exclusion | | | (2,586) |
| Foreign operating loss currently realizable | | (2,083) | |
| Net change in valuation allowance | 12,457 | 11,414 | (2,212) |
| Reduction in FIN 48 accrual | | (702) | |
| Foreign tax rate differential | (1,256) | 684 | 1,217 |
| Other | (841) | 74 | (53) |
| | \$ 1,892 | \$ 3,651 | \$ 4,959 |

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes.

Table of Contents**Veeco Instruments Inc. and Subsidiaries****Notes to Consolidated Financial Statements (Continued)****December 31, 2008**

Significant components of our deferred tax assets and liabilities are as follows (in thousands):

| | December 31, | |
|--|---------------------|-------------------|
| | 2008 | 2007 |
| Deferred tax assets: | | |
| Inventory valuation | \$ 15,094 | \$ 14,243 |
| Domestic net operating loss carry forwards | 31,644 | 39,324 |
| Tax credit carry forwards | 23,618 | 20,482 |
| Foreign net operating loss carry forwards | 692 | 234 |
| Purchased intangible assets | 7,335 | 1,968 |
| Warranty and installation accruals | 2,261 | 1,927 |
| Equity compensation | 3,175 | 1,987 |
| Other accruals | 3,240 | 4,585 |
| Other | 3,156 | 3,707 |
| Total deferred tax assets | 90,215 | 88,457 |
| Valuation allowance | (82,945) | (73,292) |
| Net deferred tax assets | 7,270 | 15,165 |
| Deferred tax liabilities: | | |
| Depreciation | 27 | 231 |
| Purchased intangible assets | 8,482 | 14,968 |
| DISC termination | 402 | 603 |
| Noncontrolling interest in acquisition | 426 | 426 |
| Other | 288 | |
| Total deferred tax liabilities | 9,625 | 16,228 |
| Net deferred taxes | \$ (2,355) | \$ (1,063) |

U.S. income taxes have not been provided for approximately \$8.2 million of cumulative undistributed earnings of several non-U.S. subsidiaries. We intend to reinvest these earnings indefinitely in operations outside of the U.S. If these earnings were repatriated, additional foreign withholding taxes of approximately \$1.5 million would be payable. No additional U.S. tax would be due based on available net operating loss and tax credit carry forwards.

We have domestic net operating loss carry forwards of approximately \$77.1 million for financial reporting purposes and \$104.2 million for tax purposes, which expire at various times between 2020 and 2025. The net operating loss carry forward amounts differ for tax and financial reporting purposes due to the application of the with and without method of accounting for equity compensation as provided for under SFAS No. 123(R), and the impact of unrecognized tax benefits established under FASB Interpretation No. 48, *Accounting for Uncertainty in Income Taxes, an interpretation of FASB Statement 109* ("FIN 48"). We also have credit carry forwards of approximately \$23.6 million, consisting primarily of research and development credits, which expire at various times between 2017 and 2028, and foreign tax credits, which expire between 2012 and 2018.

The valuation allowance of \$82.9 million at December 31, 2008, increased by approximately \$12.5 million during 2008, principally due to timing differences between the book and tax treatment of inventory, acquired intangible assets and additional tax credit carry forwards which were partially offset

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by a \$3.1 million deferred tax liability relating to the Mill Lane acquisition. If we are able to realize part or all of the domestic deferred tax assets in future periods, we will reduce our provision for income taxes with a release of the valuation allowance in an amount that corresponds with the income tax liability generated. Our net deferred tax liability of approximately \$2.4 million at December 31, 2008, principally related to a \$4.6 million net deferred tax liability pertaining to our domestic operations, offset by \$2.2 million of deferred tax assets pertaining to our foreign operations. Our net deferred tax liability of approximately \$1.1 million at December 31, 2007, principally related to a \$3.7 million net deferred tax liability pertaining to our domestic operations, offset by \$2.6 million of deferred tax assets pertaining to our foreign operations.

Under FIN 48, we must recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such uncertain tax positions are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate resolution. To the extent we prevail in matters for which accruals have been established or are required to pay amounts in excess of accruals, our effective tax rate in a given financial statement period could be affected.

For the year ended December 31, 2008 we had a net reduction of approximately \$0.9 million in our accrual related to unrecognized tax benefits. As a result of applying the provisions of FIN 48, we released approximately \$1.2 million of our accrual related to foreign unrecognized tax benefits during 2008 which was partially offset by a \$0.3 million increase to our accrual for existing foreign unrecognized tax benefits and newly established domestic uncertain tax positions. As a result, we had approximately \$1.0 million of unrecognized tax benefits at December 31, 2008, which predominantly relate to positions taken on our foreign tax returns and all of which represent the amount of unrecognized tax benefits that, if recognized, would favorably impact the effective income tax rate in future periods. At December 31, 2007, the reserve for unrecognized tax benefits was \$1.9 million relating to foreign unrecognized tax benefits

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in thousands):

| | December 31, | |
|--|---------------------|-------------|
| | 2008 | 2007 |
| Beginning balance as of December 31 | \$1,919 | \$2,311 |
| Additions for tax positions related to current year | 100 | 561 |
| Reductions for tax positions relating to current year | | (220) |
| Additions for tax positions relating to prior years | 244 | 111 |
| Reductions for tax positions relating to prior years | (710) | (844) |
| Reductions due to the lapse of the applicable statute of limitations | (535) | |
| Settlements | | |
| Ending balance as of December 31 | \$1,018 | \$1,919 |

It is our policy to recognize interest and penalties related to income tax matters in income tax expense. The total accrual for interest and penalties related to unrecognized tax benefits was approximately \$0.3 million and \$0.5 million as of December 31, 2008 and 2007, respectively. The

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Notes to Consolidated Financial Statements (Continued)

December 31, 2008

change in the accrual for interest and penalties decreased our tax expense by approximately \$0.2 million and \$0.4 million during 2008 and 2007, respectively.

At December 31, 2008 and 2007, our deferred tax asset and related valuation allowance excluded \$5.2 million relating to unrecognized tax benefits established under FIN 48.

We or one of our subsidiaries file income tax returns in the U.S. federal jurisdiction and various state, local, and foreign jurisdictions. All material federal, state and local income tax matters have been concluded for years through 2002 subject to subsequent utilization of net operating losses generated in such years. During the third quarter of 2008, the Internal Revenue Service initiated an examination of our Federal income tax return for the calendar year 2006. The majority of our foreign jurisdictions have been reviewed through 2007 with only a few jurisdictions having open tax years between 2004 and 2007. None of our tax returns are currently under examination in foreign jurisdictions.

8. Commitments and Contingencies and Other Matters

2008 Restructuring and Other Charges

During 2008, we continued our multi-quarter plan to improve profitability and reduce and contain spending. During 2008, we made progress against the initiatives that management set in 2007, continued our restructuring plan and executed activities with a focus on creating a more variable cost effective organization. These activities included downsizing and consolidating some locations, reducing our workforce, consultants and discretionary expenses and realigning our sales organization and engineering groups. In addition, due to a weakened and deteriorated business environment we have intensified and accelerated our restructuring activities. In conjunction with these activities, we recognized a restructuring charge of approximately \$10.6 million and an inventory write-off of \$2.9 million included in cost of sales related to legacy semiconductor products during the year ended December 31, 2008 as discussed below.

Lease-related and other costs

We recorded a \$3.7 million restructuring charge during 2008 for lease-related costs as part of the consolidation of our Corporate headquarters into our Plainview, New York manufacturing facility. This charge primarily consisted of the liability for the remaining lease payments and property taxes relating to the facility we vacated, offset by expected sublease income. We made certain assumptions in determining the charge, which included estimated sublease income and terms of the sublease as well as the estimated discount rate to be used in determining the fair value of the net cash flows. We developed these assumptions, based on our understanding of the current real estate market as well as current market interest rates, which are adjusted periodically based upon new information, events and changes in the real estate market. In addition, we incurred a restructuring charge of \$0.4 million associated with the termination of a leased facility in Santa Barbara, California that we vacated during the third quarter of 2008.

Personnel severance costs

We recorded a \$3.7 million restructuring charge related to a mutually agreed-upon termination of the employment agreement with our former CEO (who currently remains as Chairman of the Board of Directors) following the successful completion of the CEO transition, which included a charge of \$3.0 million for the acceleration of stock-based compensation expense and \$0.7 million related to salary

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and other related compensation, as specified in the employment agreement. The modification of the stock awards was recorded as an increase to additional paid-in capital. In addition, we reduced approximately 74 employees or 6.0% of total employees during 2008 resulting in personnel severance costs of approximately \$2.8 million, primarily in connection with increased outsourcing in our Data Storage and LED & Solar Process Equipment segments, downsizing and realignment in our Metrology segment associated with executing an operational turnaround, and realignment of the sales and service organization. This reduction in workforce included executives, management, administration and manufacturing employees companywide.

Restructuring expense for the year ended December 31, 2008 is as follows (in thousands):

| | Year ended December 31, 2008 |
|---|---|
| Lease-related and other costs | \$ 4,132 |
| Personnel severance costs | 3,493 |
| Modification of stock awards | 3,018 |
| | 10,643 |
| Less adjustment of 2007 restructuring liability | (81) |
| | \$ 10,562 |

The following is a reconciliation of the liability for the 2008 restructuring charge from inception through December 31, 2008 (in thousands):

| | LED & Solar Process Equipment | Data Storage Process Equipment | Metrology | Unallocated Corporate | Total |
|--|--|---|------------------|----------------------------------|--------------|
| <i>Short-Term Liability</i> | | | | | |
| Lease-related costs | \$ | \$ | \$ 259 | \$ 1,189 | \$ 1,448 |
| Personnel severance charges | 732 | 477 | 879 | 1,405 | 3,493 |
| Total charged to accrual | 732 | 477 | 1,138 | 2,594 | 4,941 |
| Short-term/long-term Reclassification | | | | 892 | 892 |
| Cash payments | (72) | (207) | (604) | (1,627) | (2,510) |
| Balance as of December 31, 2008 | \$ 660 | \$ 270 | \$ 534 | \$ 1,859 | \$ 3,323 |
| <i>Long-Term Liability</i> | | | | | |
| Lease-related costs charged to accrual | \$ | \$ | \$ | \$ 2,684 | \$ 2,684 |
| Short-term/long-term Reclassification | | | | (892) | (892) |
| Other adjustments | | | | (172) | (172) |
| Balance as of December 31, 2008 | \$ | \$ | \$ | \$ 1,620 | \$ 1,620 |

The balance of the 2008 restructuring accrual is expected to be paid over the next eighteen months, or the remaining life of the lease for the former Corporate headquarters. We expect to continue our restructuring program in light of the overall business decline with the objective of returning the Company to profitability and expect to incur restructuring charges throughout 2009 associated with consolidating business units, decreasing the number of manufacturing sites, implementing specific manufacturing initiatives and organizational changes, centralizing certain functions and significantly reducing the workforce across all functions of the Company. We currently expect to incur restructuring charges

between \$6.0 to \$8.0 million in 2009.

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During 2008, we recorded a \$73.3 million asset impairment charge, of which \$73.0 million was recorded during the fourth quarter and \$0.3 million was recorded during the first quarter. The fourth quarter charge consisted of \$52.3 million related to goodwill (\$30.4 million in our Data Storage Process Equipment reporting unit and \$21.9 million in our Metrology reporting unit), \$19.6 million related to intangible assets (\$5.0 million of indefinite-lived trademarks and \$14.6 of other definite-lived intangibles in our Process Equipment Data Storage reporting unit) and \$1.1 million in property, plant and equipment in our Data Storage Process Equipment reporting unit. See note 4 for more details.

The first quarter charge consisted of \$0.3 million associated with property and equipment abandoned as part of the consolidation of our Corporate headquarters into our Plainview facility.

Additionally, we recorded an inventory charge for \$2.9 million (included in cost of sales in the Consolidated Statements of Operations) associated with legacy semiconductor products.

2007 Restructuring and Other Charges

During 2007, management initiated a profit improvement plan, resulting in personnel severance costs for approximately 90 employees, or approximately 7.5% of total employees, and included management, administration and manufacturing employees companywide. Additionally, during the fourth quarter of 2007, we took additional measures to improve profitability, including a reduction of discretionary expenses, realignment of our sales organization to more closely match current market and regional opportunities, and consolidation of certain engineering groups within our data storage business, which included the discontinuation of two products. In conjunction with these activities, we recognized a restructuring charge of approximately \$6.7 million during the year ended December 31, 2007, which was recorded in restructuring expense in the Consolidated Statement of Operations. The charge consisted of the following:

| | Year ended December 31, 2007 |
|--|---|
| Personnel severance costs | \$ 4,314 |
| Purchase order commitments | 1,840 |
| Modification of stock awards for terminated executives | 572 |
| | \$ 6,726 |

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The following is a reconciliation of the liability for the restructuring charge from inception through December 31, 2008 (in thousands):

| | LED & Solar Process Equipment | Data Storage Process Equipment | Metrology | Unallocated Corporate | Total |
|---------------------------------|--|---|------------------|----------------------------------|--------------|
| Personnel severance charges | \$ 34 | \$ 658 | \$ 1,497 | \$ 2,125 | \$ 4,314 |
| Purchase order commitments | | 1,840 | | | 1,840 |
| Total charged to accrual | 34 | 2,498 | 1,497 | 2,125 | 6,154 |
| Cash payments during 2007 | (17) | (435) | (751) | (633) | (1,836) |
| Reversal of accrual during 2008 | | (81) | | | (81) |
| Cash payments during 2008 | (17) | (1,982) | (746) | (1,247) | (3,992) |
| Balance as of December 31, 2008 | \$ | \$ | \$ | \$ 245 | \$ 245 |

During the year ended December 31, 2007, a charge of \$0.6 million for the modification of stock awards was recorded as part of a termination agreement with each of five key employees as an increase to additional paid-in capital. The terms of the modifications included accelerated vesting and extended exercise periods. The remainder of the 2007 restructuring accrual balance is expected to be paid over the next seven months.

Additionally during the year ended December 31, 2007, we discontinued two product lines, resulting in an inventory write-off of \$4.8 million (included in cost of sales in the Consolidated Statement of Operations), as well as an asset impairment charge of \$1.1 million attributable to certain property and equipment associated with the aforementioned product lines.

Minimum Lease Commitments

Minimum lease commitments as of December 31, 2008 for property and equipment under operating lease agreements (exclusive of renewal options) are payable as follows (in thousands):

| | |
|------------|----------------|
| 2009 | \$5,149 |
| 2010 | 2,384 |
| 2011 | 1,194 |
| 2012 | 384 |
| 2013 | 174 |
| Thereafter | 85 |
| | \$9,370 |

Rent charged to operations amounted to \$4.3 million, \$5.3 million, and \$5.6 million in 2008, 2007, and 2006, respectively. In addition, we are obligated under such leases for certain other expenses, including real estate taxes and insurance.

Environmental Remediation

We may, under certain circumstances, be obligated to pay up to \$250,000 in connection with the implementation of a comprehensive plan of environmental remediation at our Plainview, New York facility. We have been indemnified for any liabilities we may incur in excess of \$250,000 with respect to

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any such remediation and have a liability recorded for this amount as of December 31, 2008. No comprehensive plan has been required to date. Even without consideration of such indemnification, we do not believe that any material loss or expense is probable in connection with any remediation plan that may be proposed.

We are aware that petroleum hydrocarbon contamination has been detected in the soil at the site of a facility formerly leased by us in Santa Barbara, California. We have been indemnified for any liabilities we may incur which arise from environmental contamination at the site. Even without consideration of such indemnification, we do not believe that any material loss or expense is probable in connection with any such liabilities.

The former owner of the land and building in which our Santa Barbara, California Metrology operations are located has disclosed that there are hazardous substances present in the ground under the building. Management believes that the comprehensive indemnification clause that is part of the purchase contract relating to the purchase of such land provides adequate protection against any environmental issues that may arise.

Litigation

In re Veeco Instruments Inc. Securities Litigation and Shareholder Derivative Litigation

Three shareholder derivative lawsuits were filed against our directors and certain of our officers in March and April of 2005 in federal court in the Southern District of New York. The plaintiffs in the consolidated derivative action asserted that our directors and certain of our officers breached fiduciary duties in connection with the improper accounting transactions which we had discovered at our TurboDisc business unit which led to the restatement in March 2005 of our financial statements for the quarterly periods and nine months ended September 30, 2004 and a securities class action lawsuit brought in February 2005 and settled in November 2007. On November 5, 2007, we entered into a Memorandum of Understanding to settle and fully resolve the consolidated shareholder derivative action for a payment of approximately \$0.5 million and for our agreement to adopt certain changes to our Corporate Governance Guidelines. The settlement was approved by the Court on March 28, 2008. Insurance proceeds covered the settlement amount and legal expenses related to the settlement. The settlement dismissed all pending claims against us and the other defendants with no admission or finding of wrongdoing by us or any of the other defendants, and we and the other defendants received a full release of all claims pending in the litigation.

Patent Infringement

On September 17, 2003, we filed a lawsuit in the United States District Court for the Central District of California against Asylum Research Inc., a privately-held company founded by former Veeco employees. The lawsuit alleged that the manufacture, use, and sale of Asylum's MFP-3D AFM constituted willful infringement of five patents owned by us, as well as other claims. We sued for unspecified monetary damages and a permanent injunction to stop infringement. Asylum had asserted that the patents we had sued on were invalid and unenforceable, and had filed a counterclaim for infringement of a patent licensed by Asylum, and payment of royalties it believed it was owed.

In August of 2008, we settled the patent litigation which we had brought against Asylum. In the settlement, Veeco and Asylum agreed to drop all pending claims against each other and agreed to a five year, worldwide cross license of each company's patents and a mutual covenant not to sue on

Table of Contents**Veeco Instruments Inc. and Subsidiaries****Notes to Consolidated Financial Statements (Continued)****December 31, 2008**

patents either party has a right to assert. As part of the settlement, Asylum acknowledged the validity of our patents asserted in the case and made payment to us for license fees and will pay an ongoing royalty to us for the five-year term of the cross license. During the case, we capitalized legal costs incurred to defend our patents and are now amortizing these capitalized costs over the remaining lives of these patents. Payments received from Asylum for license fees and royalties have been and will continue to be netted against these capitalized patent defense costs upon receipt. We are not required to make any payments to Asylum under this settlement including any royalties relating to the cross license.

In accordance with the provisions of EITF 00-21, *Revenue Arrangements with Multiple Deliverables*, we identified five elements to this settlement agreement as follows: (1) the dismissal of the pending litigation by us against Asylum, (2) the dismissal of the pending litigation by Asylum against us, (3) the licensing of certain patents from Asylum, (4) the licensing of certain patents to Asylum and (5) a mutual covenant not to sue. We have allocated all of the consideration and value received from the settlement to element number 4 the licensing of certain patents to Asylum, primarily because Asylum admitted in the settlement agreement that the five Veeco patents included in the infringement suit are valid and enforceable. Accordingly, the consideration received by us pursuant to the settlement relates primarily to the fees and royalties associated with the licenses granted to Asylum.

We are involved in various other legal proceedings arising in the normal course of our business. We do not believe that the ultimate resolution of these matters will have a material adverse effect on our consolidated financial position, results of operations or cash flows.

Concentrations of Credit Risk

Our business depends in large part upon the capital expenditures of key data storage and HB-LED customers, which accounted for approximately 38% and 9%, respectively, of total accounts receivable at December 31, 2008. At December 31, 2007, key data storage and HB-LED customers accounted for 45% and 11%, respectively, of total accounts receivable.

As of December 31, 2008 and 2007, we had two customers whose accounts receivable accounted for more than 10% of our aggregate accounts receivable as follows:

| | December 31, | |
|-----------------------------|---------------------|-------------|
| | 2008 | 2007 |
| Seagate Technology, Inc. | 23% | 14% |
| Western Digital Corporation | 11% | 18% |

The Data Storage Process Equipment and Metrology segments sell to these major customers. No other customers' accounts receivable represented more than 10% of total accounts receivable in either period.

Based on net sales, Seagate Technology, Inc. is our largest customer, accounting for 17%, 10%, and 18% of our total net sales in 2008, 2007, and 2006, respectively (our only customer with sales greater than 10% in any of the past three years).

We manufacture and sell our products to companies in different geographic locations. In certain instances, we require deposits for a portion of the sales price in advance of shipment. However, the majority of system sales do not require such advance payments. We do, however, perform periodic credit evaluations of our customers' financial condition and, where appropriate, require that letters of

Table of Contents**Veeco Instruments Inc. and Subsidiaries****Notes to Consolidated Financial Statements (Continued)****December 31, 2008**

credit be provided on certain foreign sales arrangements. Receivables generally are due within 30-60 days, other than receivables generated from customers in Japan where payment terms generally range from 90-150 days. Our net accounts receivable balance is concentrated in the following geographic locations (in thousands):

| | December 31, | |
|---|---------------------|-------------|
| | 2008 | 2007 |
| Americas | \$21,051 | \$19,665 |
| Europe, Middle East and Africa ("EMEA") | 15,341 | 19,384 |
| Japan | 8,183 | 14,865 |
| Asia Pacific | 15,075 | 21,192 |
| Other | 9 | 101 |
| | \$59,659 | \$75,207 |

Suppliers

We currently outsource, and plan to increase the outsourcing of, certain functions to third parties, including the manufacture of all or substantially all of our new MOCVD systems and certain data storage process equipment systems. At present, we rely primarily on two suppliers for the majority of the manufacture of these MOCVD and data storage process equipment systems. We plan to maintain internal manufacturing capability for these systems at least until such time as we have qualified more alternate suppliers to perform this manufacturing. The failure of our present suppliers to meet their contractual obligations under our supply arrangement and our inability to make alternative arrangements or resume the manufacture of these systems ourselves could have a material adverse effect on our revenues, profitability, cash flows, and relationships with our customers.

In addition, certain of the components and sub-assemblies included in our products are obtained from a single source or a limited group of suppliers. Our inability to develop alternative sources, if necessary, could result in a prolonged interruption in supply or a significant increase in the price of one or more components, which could adversely affect our operating results.

Table of Contents**Veeco Instruments Inc. and Subsidiaries****Notes to Consolidated Financial Statements (Continued)****December 31, 2008****9. Foreign Operations, Geographic Area, and Product Segment Information**

Net sales which are attributed to the geographic location in which the customer facility is located and long-lived assets related to operations in the United States and other foreign countries as of and for the years ended December 31, 2008, 2007, and 2006 are as follows (in thousands):

| | Net Sales to Unaffiliated Customers | | | Long-Lived Assets | | |
|--------------------------------------|--|----------------|----------------|-------------------|----------------|----------------|
| | 2008 | 2007 | 2006 | 2008 | 2007 | 2006 |
| United States | \$ 163,754 | \$ 127,884 | \$ 145,464 | \$ 161,217 | \$ 225,395 | \$ 242,056 |
| Other | 2,172 | 2,616 | 6,222 | | | |
| Total Americas | 165,926 | 130,500 | 151,686 | 161,217 | 225,395 | 242,056 |
| EMEA(1) | | | | | | |
| | 94,142 | 77,985 | 69,310 | 427 | 603 | 613 |
| Japan | 38,453 | 55,815 | 57,241 | 308 | 250 | 193 |
| Asia Pacific(1) | 144,288 | 138,175 | 162,797 | 398 | 439 | 451 |
| Total Other Foreign Countries | 276,883 | 271,975 | 289,348 | 1,133 | 1,292 | 1,257 |
| | \$ 442,809 | \$ 402,475 | \$ 441,034 | \$ 162,350 | \$ 226,687 | \$ 243,313 |

(1)

For the year ended December 31, 2008, net sales to customers in Taiwan were 10.1% of total net sales and for the year ended December 31, 2006, net sales to customers in Malaysia were 10.1% of total net sales. No other country in EMEA and Asia Pacific accounted for more than 10% of our net sales for the periods presented.

In 2008, we began to manage the business, review operating results, and assess performance, as well as allocate resources, based upon three separate reporting segments to more accurately reflect the market focus of each business. The LED & Solar Process Equipment segment consists of the MOCVD and MBE products and web coaters primarily sold to customers in the HB-LED, solar, and wireless industries. This segment has production facilities in Somerset, New Jersey, St. Paul, Minnesota, and Lowell, Massachusetts. The Data Storage Process Equipment segment consists of the IBE, IBD, diamond-like carbon, physical vapor deposition, and dicing and slicing products sold primarily to customers in the data storage industry. This segment has production facilities in Plainview, New York, Ft. Collins, Colorado, and Camarillo, California. The Metrology segment consists of products that are used to provide critical surface measurements on items such as semiconductor devices and TFMHs, as well as biological, nanoscience, and material science samples, and includes our broad line of atomic force microscopes, optical interferometers and stylus profilers sold to customers in the semiconductor and data storage industries and thousands of research facilities and scientific centers. This segment has production facilities in Camarillo and Santa Barbara, California and Tucson, Arizona.

Prior to 2008, we managed the business based on two segments, Process Equipment and Metrology. The Process Equipment segment combined the ion beam etch, ion beam deposition, diamond-like carbon, physical vapor deposition, and dicing and slicing products with the MOCVD and MBE technologies. The Metrology segment remained unchanged. The prior years' segment financial information presented below has been conformed to the current-period presentation.

We evaluate the performance of our reportable segments based on income (loss) from operations before interest, income taxes, amortization and certain items ("Segment profit (loss)"), which is the

Table of Contents**Veeco Instruments Inc. and Subsidiaries****Notes to Consolidated Financial Statements (Continued)****December 31, 2008**

primary indicator used to plan and forecast future periods. The presentation of this financial measure facilitates meaningful comparison with prior periods, as management believes segment profit (loss) reports baseline performance and thus provides useful information. Certain items include restructuring expenses, asset impairment charges, and inventory write-offs. Beginning in 2009, certain items will also include equity compensation. We believe this new measure excluding equity compensation will more accurately reflect the way we manage the Company's performance going forward. The accounting policies of the reportable segments are the same as those described in the summary of critical accounting policies.

The following tables present certain data pertaining to our reportable product segments and a reconciliation of segment profit (loss) to income (loss) before income taxes and noncontrolling interest for the years ended December 31, 2008, 2007, and 2006, and goodwill and total assets as of December 31, 2008 and 2007 (in thousands):

| | LED & Solar Process Equipment | Data Storage Process Equipment | Metrology | Unallocated Corporate Amount | Total |
|---|--|---|------------------|---|--------------|
| Year ended December 31, 2008 | | | | | |
| Net sales | \$ 165,812 | \$ 149,123 | \$ 127,874 | \$ | \$ 442,809 |
| Segment profit (loss) | \$ 26,467 | \$ 19,877 | \$ (3,495) | \$ (14,386) | \$ 28,463 |
| Interest expense, net | | | | 3,812 | 3,812 |
| Amortization expense | 4,627 | 3,790 | 1,880 | 448 | 10,745 |
| Restructuring expense | 732 | 396 | 1,138 | 8,296 | 10,562 |
| Asset impairment charges | | 51,102 | 21,935 | 285 | 73,322 |
| Inventory write-offs | | | 2,900 | | 2,900 |
| Purchase accounting adjustment | 1,492 | | | | 1,492 |
| Gain on extinguishment of debt | | | | (4,969) | (4,969) |
| Income (loss) before income taxes and noncontrolling interest | \$ 19,616 | \$ (35,411) | \$ (31,348) | \$ (22,258) | \$ (69,401) |
| Year ended December 31, 2007 | | | | | |
| Net sales | \$ 115,863 | \$ 136,169 | \$ 150,443 | \$ | \$ 402,475 |
| Segment profit (loss) | \$ 13,991 | \$ 5,861 | \$ 2,441 | \$ (11,489) | \$ 10,804 |
| Interest expense, net | | | | 3,013 | 3,013 |
| Amortization expense | 4,263 | 3,806 | 1,486 | 695 | 10,250 |
| Restructuring expense | 34 | 2,498 | 1,952 | 2,242 | 6,726 |
| Asset impairment charges | | 1,068 | | | 1,068 |
| Inventory write-offs | | 4,821 | | | 4,821 |
| Gain on extinguishment of debt | | | | (738) | (738) |
| Income (loss) before income taxes and noncontrolling interest | \$ 9,694 | \$ (6,332) | \$ (997) | \$ (16,701) | \$ (14,336) |

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Veeco Instruments Inc. and Subsidiaries

Notes to Consolidated Financial Statements (Continued)

December 31, 2008

| | LED & Solar Process Equipment | Data Storage Process Equipment | Metrology | Unallocated Corporate Amount | Total |
|--|--|---|------------|------------------------------------|------------|
| Year ended December 31, 2006 | | | | | |
| Net sales | \$ 94,165 | \$ 174,713 | \$ 172,156 | \$ | \$ 441,034 |
| Segment profit (loss) | \$ 2,001 | \$ 26,443 | \$ 23,281 | \$ (12,064) | \$ 39,661 |
| Interest expense, net | | | | 4,268 | 4,268 |
| Amortization expense | 9,434 | 3,746 | 1,815 | 1,050 | 16,045 |
| Write-off of purchased in-process technology | | 1,160 | | | 1,160 |
| Gain on extinguishment of debt | | | | (330) | (330) |
| (Loss) income before income taxes and noncontrolling interest | \$ (7,433) | \$ 21,537 | \$ 21,466 | \$ (17,052) | \$ 18,518 |

| | LED & Solar Process Equipment | Data Storage Process Equipment | Metrology | Unallocated Corporate Amount | Total |
|--------------------------------|--|---|------------|------------------------------------|------------|
| As of December 31, 2008 | | | | | |
| Goodwill | \$ 51,727 | \$ | \$ 7,433 | \$ | \$ 59,160 |
| Total assets | \$ 137,037 | \$ 84,335 | \$ 85,390 | \$ 122,779 | \$ 429,541 |
| As of December 31, 2007 | | | | | |
| Goodwill | \$ 41,153 | \$ 30,377 | \$ 29,368 | \$ | \$ 100,898 |
| Total assets | \$ 121,326 | \$ 144,944 | \$ 121,060 | \$ 142,004 | \$ 529,334 |

Other Segment Data (in thousands):

| | Year ended December 31, | | |
|---|-------------------------|-----------|-----------|
| | 2008 | 2007 | 2006 |
| Depreciation and amortization expense: | | | |
| LED & Solar Process Equipment | \$ 7,850 | \$ 6,903 | \$ 12,000 |
| Data Storage Process Equipment | 7,690 | 9,063 | 9,935 |
| Metrology | 7,393 | 6,618 | 5,597 |
| Unallocated Corporate | 2,156 | 2,407 | 2,548 |
| Total depreciation and amortization expense | \$ 25,089 | \$ 24,991 | \$ 30,080 |
| Expenditures for long-lived assets: | | | |
| LED & Solar Process Equipment | \$ 5,605 | \$ 2,620 | \$ 3,554 |
| Data Storage Process Equipment | 4,256 | 2,844 | 4,542 |
| Metrology | 1,728 | 1,682 | 7,146 |
| Unallocated Corporate | 1,217 | 1,946 | 2,159 |
| Total expenditures for long-lived assets | \$ 12,806 | \$ 9,092 | \$ 17,401 |

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Veeco Instruments Inc. and Subsidiaries

Notes to Consolidated Financial Statements (Continued)

December 31, 2008

10. Defined Contribution Benefit Plan

We maintain a defined contribution benefit plan under Section 401(k) of the Internal Revenue Code. Almost all of our domestic full-time employees are eligible to participate in this plan. Under the plan, we provide matching contributions of fifty cents for every dollar employees contribute up to a maximum of the lesser of 6% of an employee's eligible compensation or \$2,500. The plan also allows the Board of Directors to determine annual discretionary profit sharing contributions at each plan year-end. Generally, the plan calls for vesting of Company contributions over the initial five years of a participant's employment. Beginning in 2007, we maintained a similar type of contribution plan at one of our foreign subsidiaries.

Our contributions to these plans in 2008, 2007, and 2006 were \$1.7 million, \$1.7 million, and \$1.8 million, respectively.

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Schedule II Valuation and Qualifying Accounts (in thousands)

| COL. A | COL. B | COL. C | COL. D | COL. E | |
|--|--------------------------------|-------------------------------|---------------------------|------------|--------------------------|
| Description | Balance at Beginning of Period | Additions | | Deductions | Balance at End of Period |
| | | Charged to Costs and Expenses | Charged to Other Accounts | | |
| Deducted from asset accounts: | | | | | |
| Year ended December 31, 2008: | | | | | |
| Allowance for doubtful accounts | \$ 984 | \$ (49) | \$ | \$ 2 | \$ 937 |
| Valuation allowance on net deferred tax assets | 73,292 | 12,457 | 317 | (3,121) | 82,945 |
| | \$ 74,276 | \$ 12,408 | \$ 317 | \$ (3,119) | \$ 83,882 |
| Deducted from asset accounts: | | | | | |
| Year ended December 31, 2007: | | | | | |
| Allowance for doubtful accounts | \$ 2,683 | \$ (1,070) | \$ | \$ (629) | \$ 984 |
| Valuation allowance on net deferred tax assets | 67,770 | 11,414 | | (5,892) | 73,292 |
| | \$ 70,453 | \$ 10,344 | \$ | \$ (6,521) | \$ 74,276 |
| Deducted from asset accounts: | | | | | |
| Year ended December 31, 2006: | | | | | |
| Allowance for doubtful accounts | \$ 1,860 | \$ 322 | \$ 527 | \$ (26) | \$ 2,683 |
| Valuation allowance on net deferred tax assets | 69,982 | (2,212) | | | 67,770 |
| | \$ 71,842 | \$ (1,890) | \$ 527 | \$ (26) | \$ 70,453 |

INDEX TO EXHIBITS

Unless otherwise indicated, each of the following exhibits has been previously filed with the Securities and Exchange Commission by the Company under File No. 0-16244.

| Number | Exhibit | Incorporated by Reference to the Following Documents |
|--------|---|--|
| 3.1 | Amended and Restated Certificate of Incorporation of the Company dated December 1, 1994, as amended June 2, 1997 and July 25, 1997. | Quarterly Report on Form 10-Q for the quarter ended June 30, 1997, Exhibit 3.1 |
| 3.2 | Amendment to Certificate of Incorporation of Veeco dated May 29, 1998. | Annual Report on Form 10-K for the year ended December 31, 2000, Exhibit 3.2 |
| 3.3 | Amendment to Certificate of Incorporation of Veeco dated May 5, 2000. | Quarterly Report on Form 10-Q for the quarter ended June 30, 2000, Exhibit 3.1 |
| 3.4 | Certificate of Designation, Preferences, and Rights of Series A Junior Participating Preferred Stock of Veeco. | Quarterly Report on Form 10-Q for the quarter ended March 31, 2001, Exhibit 3.1 |
| 3.5 | Fourth Amended and Restated Bylaws of the Company, effective October 23, 2008 | Current Report on Form 8-K filed October 27, 2008, Exhibit 3.1 |
| 4.1 | Rights Agreement, dated as of March 13, 2001, between Veeco Instruments Inc. and American Stock Transfer and Trust Company, as Rights Agent, including the form of the Certificate of Designation, Preferences, and Rights setting forth the terms of the Series A Junior Participating Preferred Stock, par value \$0.01 per share, as Exhibit A, the form of Rights Certificates as Exhibit B and the Summary of Rights to Purchase Preferred Stock as Exhibit C. | Registration Statement on Form 8-A dated March 15, 2001, Exhibit 1 |
| 4.2 | Amendment to Rights Agreement, dated as of September 6, 2001, between Veeco Instruments Inc. and American Stock Transfer and Trust Company, as rights agent. | Current Report on Form 8-K, filed September 21, 2001, Exhibit 4.1 |
| 4.3 | Amendment No 2 to Rights Agreement, dated as of July 11, 2002, between Veeco Instruments Inc. and American Stock Transfer and Trust Company, as rights agent. | Current Report on Form 8-K, filed July 12, 2002, Exhibit 4.1 |
| 4.4 | Indenture, dated April 16, 2007, between Veeco Instruments Inc. and U.S. Bank National Trust | Post-Effective Amendment No. 1 To Registration Statement on Form S-3 (File No. 333-128004) filed April 16, 2007, Exhibit 4.1 |
| 4.5 | First Supplemental Indenture, dated April 20, 2007, by and between Veeco Instruments Inc. and U.S. Bank Trust National Association, as Trustee | Current Report on Form 8-K, filed April 20, 2007, Exhibit 4.1 |
| 10.1 | Credit Agreement, dated as of August 20, 2007, by and among Veeco Instruments Inc., HSBC Bank USA, National Association, as administrative agent, and the lenders named therein. | Quarterly Report on Form 10-Q for the quarter ended September 30, 2007, Exhibit 10.1 |

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| Number | Exhibit | Incorporated by Reference to the Following Documents |
|--------|--|---|
| 10.2 | First Amendment dated as of February 25, 2008 to the Credit Agreement dated August 20, 2007 among Veeco Instruments Inc., HSBC Bank USA, National Association, as administrative agent, and the lenders named therein. | Annual Report on Form 10-K for the year ended December 31, 2007, Exhibit 10.2 |
| 10.3 | Amendment and Reaffirmation dated August 20, 2007 of Security Agreement dated as of March 15, 2005 among Veeco Instruments Inc., the subsidiaries of Veeco named therein and HSBC Bank USA, National Association, as administrative agent. | Quarterly Report on Form 10-Q for the quarter ended September 30, 2007, Exhibit 10.2 |
| 10.4 | Loan Agreement dated as of December 15, 1999 between Applied Epi, Inc. and Jackson National Life Insurance Company. | Quarterly Report on Form 10-Q for the quarter ended September 30, 2001, Exhibit 10.2 |
| 10.5 | Amendment to Loan Documents effective as of September 17, 2001 between Applied Epi, Inc. and Jackson National Life Insurance Company (executed in June 2002). | Quarterly Report on Form 10-Q for the quarter ended June 30, 2002, Exhibit 10.2 |
| 10.6 | Promissory Note dated as of December 15, 1999 issued by Applied Epi, Inc. to Jackson National Life Insurance Company. | Quarterly Report on Form 10-Q for the quarter ended September 30, 2001, Exhibit 10.3 |
| 10.7* | Veeco Instruments Inc. Amended and Restated 1992 Employees' Stock Option Plan. | Registration Statement on Form S-1 (File No. 33-93958), Exhibit 10.20 |
| 10.8* | Amendment dated May 15, 1997 to Veeco Instruments Inc. Amended and Restated 1992 Employees' Stock Option Plan. | Registration Statement on Form S-8 (File No. 333-35009) filed September 5, 1997, Exhibit 10.1 |
| 10.9* | Amendment dated July 25, 1997 to Veeco Instruments Inc. Amended and Restated 1992 Employees' Stock Option Plan. | Registration Statement on Form S-8 (File No. 333-35009) filed September 5, 1997, Exhibit 10.2 |
| 10.10* | Amendment dated May 29, 1998 to Veeco Instruments Inc. Amended and Restated 1992 Employees' Stock Option Plan. | Registration Statement on Form S-8 (File No. 333-79469) filed May 27, 1999, Exhibit 10.1 |
| 10.11* | Amendment dated May 14, 1999 to Veeco Instruments Inc. Amended and Restated 1992 Employees' Stock Option Plan. | Registration Statement on Form S-8 (File No. 333-79469) filed May 27, 1999, Exhibit 10.2 |
| 10.12* | Veeco Instruments Inc. 1994 Stock Option Plan for Outside Directors. | Registration Statement on Form S-1 (File No. 33-85184), Exhibit 10.17 |
| 10.13* | Amendment dated May 15, 1996 to Veeco Instruments Inc. Amended and Restated 1994 Stock Option Plan for Outside Directors. | Registration Statement on Form S-8 (File No. 333-08981) filed July 26, 1996, Exhibit 10.2 |
| 10.14* | Amendment dated May 15, 1997 to Veeco Instruments Inc. Amended and Restated 1994 Stock Option Plan for Outside Directors. | Registration Statement on Form S-8 (File No. 333-35009) filed September 5, 1997, Exhibit 10.3 |
| 10.15* | Amendment dated May 21, 1999 to Veeco Instruments Inc. Amended and Restated 1994 Stock Option Plan for Outside Directors. | Registration Statement on Form S-8 (File No. 333-79469) filed May 27, 1999, Exhibit 10.3 |

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| Number | Exhibit | Incorporated by Reference to the Following Documents |
|--------|---|--|
| 10.16* | Veeco Instruments Inc. Amended and Restated 2000 Stock Incentive Plan, effective July 20, 2006. | Quarterly Report on Form 10-Q for the quarter ended June 30, 2006, Exhibit 10.4 |
| 10.17* | Amendment No. 1 effective April 18, 2007 (ratified by the Board August 7, 2007) to Veeco Instruments Inc. Amended and Restated 2000 Stock Incentive Plan. | Quarterly Report on Form 10-Q for the quarter ended June 30, 2007, Exhibit 10.1 |
| 10.18* | Form of Restricted Stock Agreement pursuant to the Veeco Instruments Inc. 2000 Stock Incentive Plan, effective November 2005 | Quarterly Report on Form 10-Q for the quarter ended September 30, 2005, Exhibit 10.3 |
| 10.19* | Form of Directors Restricted Stock Agreement pursuant to the Veeco Instruments Inc. 2000 Stock Incentive Plan, effective May 2006 | Quarterly Report on Form 10-Q for the quarter ended September 30, 2006, Exhibit 10.2 |
| 10.20* | Form of Notice of Restricted Stock Award and related terms and conditions pursuant to the Veeco Instruments Inc. 2000 Stock Incentive Plan, effective June 2006 | Quarterly Report on Form 10-Q for the quarter ended September 30, 2006, Exhibit 10.3 |
| 10.21* | Veeco Instruments Inc. 2000 Stock Option Plan for Non-Officer Employees. | Registration Statement on Form S-8 (File Number 333-49476) filed November 7, 2000, Exhibit 4.4 |
| 10.22* | Amendment No. 1 to the Veeco Instruments Inc. 2000 Stock Option Plan for Non-Officer Employees, effective dated July 26, 2001. | Registration Statement on Form S-8 (File Number 333-66574) filed August 2, 2001, Exhibit 4.2 |
| 10.23* | Veeco Instruments Inc. 2006 Long-Term Cash Incentive Plan | Quarterly Report on Form 10-Q for the quarter ended June 30, 2006, Exhibit 10.1 |
| 10.24* | Employment agreement effective as of July 1, 2007 between John R. Peeler and Veeco Instruments Inc. | Quarterly Report on Form 10-Q for the quarter ended June 30, 2007, Exhibit 10.3 |
| 10.25* | Employment Agreement dated as of April 1, 2003 between John F. Rein, Jr. and Veeco Instruments Inc. | Quarterly Report on Form 10-Q for the quarter ended June 30, 2003, Exhibit 10.5 |
| 10.26* | Amendment to Employment Agreement of John F. Rein, Jr., effective June 9, 2006 | Quarterly Report on Form 10-Q for the quarter ended June 30, 2006, Exhibit 10.2 |
| 10.27* | Letter Agreement dated January 21, 2004 between the Company and John P. Kiernan. | Annual Report on Form 10-K for the year ended December 31, 2003, Exhibit 10.38 |
| 10.28* | Letter Agreement dated October 31, 2005 between Veeco Instruments Inc. and Robert P. Oates | Quarterly Report on Form 10-Q for the quarter ended September 30, 2005, Exhibit 10.1 |
| 10.29* | Form of Amendment to Letter Agreements of John P. Kiernan and Robert P. Oates effective June 9, 2006 | Quarterly Report on Form 10-Q for the quarter ended June 30, 2006, Exhibit 10.3 |
| 10.30* | Letter Agreement dated October 15, 2007 between Veeco Instruments Inc. and William A. Tomeo | Annual Report on Form 10-K for the year ended December 31, 2007, Exhibit 10.32 |

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| Number | Exhibit | Incorporated by Reference to the Following Documents |
|--------|---|--|
| 10.31* | Letter Agreement dated January 11, 2008 between Veeco Instruments Inc. and Mark R. Munch | Annual Report on Form 10-K for the year ended December 31, 2007, Exhibit 10.33 |
| 10.32* | Form of Indemnification Agreement entered into between Veeco Instruments Inc. and each of its directors and executive officers. | Current Report on Form 8-K filed on October 23, 2006, Exhibit 10.1 |
| 10.33* | Amendment to Employment Agreement dated as of September 12, 2008 between John F. Rein, Jr. and Veeco Instruments Inc. | Quarterly Report on Form 10-Q for the quarter ended September 30, 2008, Exhibit 10.1 |
| 10.34* | Amendment to Employment Agreement dated as of September 12, 2008 between Robert P. Oates and Veeco Instruments Inc. | Quarterly Report on Form 10-Q for the quarter ended September 30, 2008, Exhibit 10.2 |
| 10.35* | Senior Executive Change in Control Policy effective as of September 12, 2008 | Quarterly Report on Form 10-Q for the quarter ended September 30, 2008, Exhibit 10.3 |
| 10.36* | Service Agreement effective July 24, 2008 between Edward H. Braun and Veeco Instruments Inc. | Quarterly Report on Form 10-Q for the quarter ended June 30, 2008, Exhibit 10.1 |
| 10.37* | Amendment No. 1 dated December 23, 2008 (effective September 12, 2008) to Veeco Instruments Inc. Senior Executive Change in Control Policy | Filed herewith |
| 10.38* | Amendment effective December 31, 2008 to Employment Agreement between Veeco Instruments Inc. and John R. Peeler | Filed herewith |
| 10.39* | Amendment effective December 31, 2008 to Employment Agreement between Veeco Instruments Inc. and John F. Rein, Jr. | Filed herewith |
| 10.40* | Form of Amendment effective December 31, 2008 to Letter Agreements between Veeco Instruments Inc. and each of John P. Kiernan, Mark R. Munch and Robert P. Oates | Filed herewith |
| 10.41* | Amendment No. 2 dated January 22, 2009 to Veeco Instruments Inc. Amended and Restated 2000 Stock Incentive Plan. | Filed herewith |
| 10.42 | Second Amendment dated as of February 27, 2009 (effective December 31, 2008) to the Credit Agreement dated August 20, 2007 among Veeco Instruments Inc., HSBC Bank USA, National Association, as administrative agent, and the lenders named therein. | Filed herewith |
| 21.1 | Subsidiaries of the Registrant. | Filed herewith |
| 23.1 | Consent of Ernst & Young LLP. | Filed herewith |
| 31.1 | Certification of Chief Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities and Exchange Act of 1934. | Filed herewith |

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| Number | Exhibit | Incorporated by Reference to the Following Documents |
|---------------|--|---|
| 31.2 | Certification of Chief Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities and Exchange Act of 1934. | Filed herewith |
| 32.1 | Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes- Oxley Act of 2002 | Filed herewith |
| 32.2 | Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes- Oxley Act of 2002 | Filed herewith |

*

Indicates a management contract or compensatory plan or arrangement, as required by Item 15(a) (3) of Form 10-K.

QuickLinks

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