

## MTI SUSTAINABILITY

The information contained in our Sustainability Report is supplemented by other Minerals Technologies' reports and documents. These include the Annual Report to Shareholders, the annual Form 10K and SEC filings, which can be found on our website: www.mineralstech.com. We encourage readers to review all these sources to learn more about MTI in addition to our sustainability efforts.

This report may contain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, which describe or are based on current expectations. Actual results may differ materially from these expectations. In addition, any statements that are not historical fact (including statements containing the words "believes," "plans," "anticipates," "expects," "estimates," and similar expressions) should also be considered to be forward-looking statements. The company undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events, or otherwise. Forward-looking statements in this document should be evaluated together with the many uncertainties that affect our businesses, particularly those mentioned in the risk factors and other cautionary statements in our 2011 Annual Report on Form 10-K and in our other reports filed with the Securities and Exchange Commission.

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## DEAR STAKEHOLDERS:

This is our fifth Sustainability Report, which is part of a continuous process to improve on the report from the prior year. Since 2007, Minerals Technologies and its employees have been focused on a number of areas that help to make the company more sustainable over time. The safety of our employees is a core value of our company.

In 2012, MTI continued to improve our safety performance at all locations and business units. Two thousand twelve was the third year that the recordable injury rate was less than 2.0 injuries per 100 employee-years and the fifth year in a row in which the lost workday injury rate was less than 1.0 injuries per 100 employee-years. MTI's Environmental, Health & Safety (EHS) Lead Team is continuing to provide assistance and guidance to keep MTI on the path to achieving world class safety performance. In order to achieve our goal, we are using a number of tools and best practices—a company-wide use of Residual Risk Reduction and fatality prevention processes to identify and reduce hidden, or unrecognized, risks, a self-assessment system that targets the issues and hazards that are relevant to MTI operations, and use of Safe Workplace Action Teams consisting of process, organizational and safety experts that can provide rapid assistance to our sites on short notice.

For 2012, the overall company rate for lost workday injuries was 0.431 per 200,000 hours worked compared to 0.650 in 2011, a 34-percent improvement. The company's recordable injury rate was 1.63 per 200,000 hours worked compared to 1.577 in 2011—a 3 percent increase. Our four-year average lost workday rate was 0.610; and our four year average recordable rate was 1.669.

From a historical perspective, MTI has made great gains in safety performance. In 2006, the year before safety became a primary focus for the entire company, the lost workday rate was 2.56. In 2007, the rate was reduced by more than 50 percent and since 2008 the rate has been below 1.000. The 2012 rate of 0.431 is a 54 percent improvement in five years.

Everyone in this company can be proud of our safety record and our efforts to make MTI a safer place to work. Our goal is to have everyone go home at the end of their workday in the same condition they came to work. However, there is still a lot for us to do, and we remain committed to the

target condition of zero injuries everywhere in the world and believe that all injuries can be prevented.

Our efforts to embed Lean principles into the company began in 2007 with employees learning Continuous Improvement processes—5S, Total Productive Maintenance (TPM), Standard Work and Daily Management Control. We approached this effort by teaching the principles to leaders in the company, who, in turn, trained employees throughout the organization. This approach has ingrained these processes. Today, every MTI employee, whether in a manufacturing operation or a staff function, is engaged in applying these tools and processes in eliminating waste. And, the results have been significant, as our sales per employee have improved by more than 25 percent over the last five years.

Our Operational Excellence process, which is based on Lean Manufacturing principles, is producing significant economic returns in the form of improved productivity and quality as well as reduced waste. Beginning in 2010, our EHS and Operational Excellence Lead Teams began merging safety with Lean tools in order to better leverage both efforts, and we continue that practice today. An example of the benefits provided by combining Safety and Lean are the safety improvements that resulted when the Residual Risk Reduction process was added to all Kaizen, Standard Work and TPM activities. The integration of lean and safety provides an excellent platform for performing tasks and managing our processes in the safest and lowestcost ways possible.

In 2012, our employees held more than 360 TPM events and 1,191 kaizen events, which, on average, meant that four continuous improvement events occurred every day somewhere in MTI. And, our employees also continued to generate new ideas through a robust suggestion system, which has become an integral part of how we operate. For 2012, our employees generated more than 9,800 ideas—a more than 60-pecent improvement over 2011. In addition, 65 percent of these ideas were implemented. Continuous improvement has become a norm of our culture.

Our responsibility to protect the environment remains another company core value, where we have also realized

## "OUR RESPONSIBILITY TO PROTECT THE ENVIRONMENT REMAINS ANOTHER COMPANY CORE VALUE, AND ONE WHERE WE HAVE ALSO REALIZED IMPROVED PERFORMANCE."

improved performance. Each Business Unit has taken specific steps to reduce waste and the environmental impacts of its operations. Minteg, our refractory business that primarily serves the worldwide steel industry, is using recycled materials in many products and thus reducing both the amount of material sent to landfills and the environmental impacts of producing virgin raw materials. The Paper PCC group, the world's largest supplier of precipitated calcium carbonate (PCC) to the paper industry, has identified increased water efficiency and the use of byproducts as two areas of primary focus. Performance Minerals, which provides ground calcium carbonate, talc and PCC for non-paper use, is focusing on energy improvements and increasing the ratio of product to mined materials. By using more of the mined material, Performance Minerals extends the life of the mine, conserving limited natural resources, and reduces the amount of waste rock or material that must be managed. All of these efforts will provide substantial environmental benefits to MTI and our customers over time

MTI is affected by climate-change driven regulations, which require reduction of greenhouse gas emissions from our two lime production operations in the United States and the United Kingdom as well as at many of our customers' and suppliers' locations. MTI has fully complied with the greenhouse gas requirements that apply to our operations. Paper PCC has also provided assistance to our customers to help them benefit from the emission reductions resulting from use of our products.

On the economic and social fronts, we recorded record earnings for the third year in a row. This was the result of three factors: innovation, employee involvement and modest economic improvement in our end markets. The company introduced new products that created more value for our customers; the dedicated effort of our employees improved productivity significantly through our Operational Excellence/Lean initiative; and we saw some improvement in the economic environment of our major end markets of the paper, steel, construction and automotive industries. Our operating income for 2012 was \$110.0 million, a 9-percent increase over 2011 and we recorded \$2.09 earnings per share, an 8-percent increase over 2011. In

November of 2012, the company executed a two-for-one stock split and doubled the dividend. Sales decreased 4 percent to \$1.01 billion.

MTI also leverages a Global Shared Services model with our Oracle Enterprise Systems to create a global platform. We continue to add new services to the portfolio of service offerings, enhancing the ability of the Shared Services Group to drive further efficiencies in delivering a high quality of standardized services. Global Shared Services is located in the United States, Romania and India, which provides the flexibility of service hours and low-cost operations. This model will allow for quick integration of new businesses thus increasing the company's ability to gain synergistic value.

By maintaining high performance in everything we do safety, innovation, and profitability—the values MTI is built upon, and the products we make and our customers use, will continue to drive our sustainability efforts over time.

Minerals Technologies has more than 100 locations in 26 countries, and we continue to be committed to sustainability and good citizenship in all the communities where we operate.

As with all our stakeholders, we are interested in your perspective on our sustainability efforts. Your feedback will help us improve. Please send your thoughts to: investor.relations@mineralstech.com.

Sincerely.

Robert S. Wetherbee President and Chief Executive Officer



# KEY IMPACTS, RISKS AND **OPPORTUNITIES**

As a consumer and producer of mineral products, we recognize our obligation to ensure that the raw materials we purchase and mine, as well as the fuel and energy needed to operate our processes, are used efficiently and safely. MTI is committed to protecting the health and safety of our employees, customers, visitors and neighbors. As an international company, MTI is committed to fully meeting or exceeding our legal and ethical requirements in all of our global activities. We operate with one global standard. The company employs extensive land restoration processes to protect the biodiversity and natural habitats at each of our mining operations. We are also putting into practice process and operational improvements that help us reduce our fuel and electrical consumption, which also reduces greenhouse gas emissions.

MTI has been an operating entity since 1992, when it was formed through an initial public offering. We have grown from a company that had \$360 million in revenues in 1992 to \$1.01 billion in 2012. The company is dedicated to profitable growth and improving shareholder value.

In 2007, the company adopted four longer-term, major initiatives aimed at improving environment, health and safety, operating performance and sustainable growth. These initiatives, guided by cross-functional lead teams, are: Environmental, Health & Safety; Operational Excellence; Expense Reduction; and Technology and Innovation. MTI has made significant progress in all of these areas. MTI insists that all locations provide a safe workplace for all employees and visitors. The Lost Workday Injury Rate for 2012 was less than 0.5 injuries resulting in days lost from work per 100 employee-years; the lowest in company history. The 2012 Recordable Injury Rate was the secondlowest for MTI. Both rates continue to provide evidence of the impact of the MTI focus on safety. Both Rates continue to provide evidence of the impact of the MTI focus on safety.

Our efforts in Operational Excellence and expense reduction have also begun to yield results. Sales per employee, for example, have increased from \$449,000 per employee in 2007 to \$466,000 per employee for 2012. The company

## THE LOST WORKDAY INJURY RATE FOR 2012 WAS LESS THAN 0.5 INJURIES RESULTING IN DAYS LOST FROM WORK PER 100 EMPLOYEE-YEARS: THE LOWEST IN COMPANY HISTORY.

has also reduced total expenses by more than \$40 million between 2006 and 2012. Recently, MTI has begun combining aspects of the Safety and Operational Excellence programs. As a result, MTI is beginning to reap additional safety and efficiency benefits as well as ingrain both programs into the company culture.

Our focus on innovation and new product development provide further opportunities for growth. The Technology Lead Team put in place a new product development process, which includes employee and customer involvement in generating new product ideas. Today, we have more than 95 new product ideas in a pipeline that had nearly run dry in 2007. We continue to look for opportunities to penetrate new markets and take advantage of our expertise in crystal engineering.

A decrease in economic activity, as we saw in 2009 in our end markets of paper, steel, construction and automotive, poses a significant risk for MTI. We are seeing a sluggish recovery in those markets, as paper and steel production remain approximately 10 percent below pre-recession levels. However, as a result of strict cost controls and identifying opportunities during this period, MTI ended 2012 in an excellent position. Although there are still concerns and questions about the global economy, MTI is well-positioned for the future.

## ORGANIZATIONAL PROFILE

Minerals Technologies Inc. is a resource- and technologybased company that develops, produces and markets worldwide a broad range of specialty mineral, mineral-based and synthetic mineral products and supporting systems and services. Headquartered at 622 Third Avenue in New York City, MTI has two reportable business segments and three business units. The business units serve a variety of end markets with a broad range of specialty mineral, mineralbased and synthetic mineral products and supporting systems and services. These end markets include: paper, steel, construction and automotive. A technology driven company, MTI places great emphasis on the research and development of technologically advanced new products, which has allowed it to anticipate and satisfy changing customer requirements. This, in turn, has allowed us to create new market opportunities through new product development and product application innovations.

The business units are: Paper PCC (precipitated calcium carbonate); Refractories, which is operated by Minteq International Inc.; and Performance Minerals, which includes our Processed Minerals and Specialty PCC businesses. The two reportable segments are: Specialty Minerals and Refractories. Specialty Minerals produces PCC and mines and processes limestone and talc. These products are used principally in the paper, building materials, and automotive industries. Refractories, which also include metallurgical wire and application equipment, are used primarily in the steel industry.

### Specialty Minerals Segment

#### **PCC Products**

MTI is the largest supplier of PCC to the worldwide paper industry. At the end of 2012, the company had more than 55 Paper PCC plants in 17 countries on site at paper mills owned by the world's largest paper companies. The company's PCC is used primarily as mineral filler in the production of coated and uncoated wood-free printing and writing papers, such as office papers. MTI also produces PCC used to coat both wood-free and

groundwood papers. In addition, the PCC produced by our Performance Minerals facilities is used as a key ingredient in the polymer, construction, automotive, food and pharmaceutical industries.

MTI manufactures several customized forms of PCC using proprietary processes. Each product form is designed to provide optimum balance of paper properties including brightness, opacity, bulk, strength and improved printability. The company's research and development and technical service staffs focus on expanding sales from its existing Paper PCC plants as well as developing new technologies for new applications. Our new Fulfill® platform of technologies launched in 2010, allows papermakers to substitute additional PCC for more expensive wood fiber.

#### **Processed Minerals**

MTI mines and processes natural mineral products, primarily limestone and talc. The company also manufactures lime, a limestone-based product. Lime is used primarily as a raw material for the manufacture of PCC, and is sold commercially.

Limestone products are mined and processed at Adams, Massachusetts; Canaan, Connecticut; and Lucerne Valley, California. Lime and PCC are produced at the Adams, and Lifford, United Kingdom, facilities. The company mines, beneficiates and processes talc at its Barretts site, located near Dillon, Montana. Talc is sold worldwide in finely ground form for ceramic applications and in North America for paint and coatings and polymer applications.

The company's natural mineral products are supported by the company's limestone reserves located in the western and eastern parts of the United States, and talc reserves located in Montana. The company estimates these reserves, at current usage levels, to be in excess of 30 years at its limestone production facilities and in excess of 20 years at its talc production facility.

### Refractories Segment

#### Refractory Products and Markets

The Refractories segment produces and markets a broad range of monolithic and shaped refractory materials, services and application and measurement equipment, and calcium metal and metallurgical wire products. These products are used primarily in high-temperature applications in the steel, non-ferrous metal and glass industries.

Refractory product sales are supported by our Steel Mill Service groups, which provide on-site technical service support and use proprietary application equipment developed and supplied by our application experts. The company's proprietary measurement and robotic application systems allow for precise remote-controlled application of our refractory products. The use of our engineered refractory products and application systems enable Minteg to greatly extend the life of the high-temperature equipment while improving the safety of our Steel Mill Service teams, as well as the employees of our steel customers.

#### Metallurgical Products and Markets

The company produces a number of other technologically advanced products including calcium metal, metallurgical wire products and metal treatment specialty products. The metallurgical wire products are injected into molten steel to improve castability and reduce imperfections. MTI manufactures calcium metal and purchases calcium in international markets.

## MTI LOCATIONS WORLDWIDE

Minerals Technologies has more than 100 locations in 26 countries, with 75 plants, eight research facilities and 20 sales and administrative offices worldwide. The company operates in: the United States, Australia, Belgium, Brazil, Canada, China, Finland, France, Germany, The Netherlands, India, Indonesia, Ireland, Italy, Japan, Malaysia, Mexico, Poland, Portugal, Singapore, Slovakia, South Africa, Thailand, Turkey and the United Kingdom.

Minerals Technologies is listed on the New York Stock Exchange under the symbol MTX. More than 95 percent of the company's ownership is comprised of institutional investors.

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### MTI's Awards and Achievements

- The Confederation of Indian Industry (CII) has conferred its Environmental Best Practices Award for 2012 on BILT Graphic Paper Products Limited (BGPPL) for the "most innovative environmental project." The award was presented for the "carbon sequestering at BGPPL unit Ballarpur by installation of precipitated calcium carbonate (PCC) manufacturing plant."
- ISO 14001 Certifications
  - · Cork, Ireland
  - Rotherham, UK
- OHSAS 18001 Certification
  - Rotherham, UK
- Voluntary Protection Program— OSHA outreach safety program and certification
  - PCC International Falls, MN
  - PCC Courtland, AL

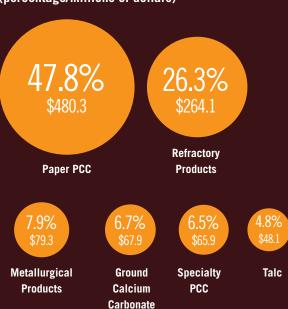
## MTI SALES

As of December 31, 2012 the company employed 1,992 persons, of whom 925 were employed outside of North America. Worldwide net sales for 2012 were \$1.01 billion, a 4-percent decrease from the \$1.05 billion recorded in 2011.

At the close of 2012, the company had \$813.7 million in equity and \$92.6 million in debt. Total market capitalization for the company was approximately \$1.47 billion.

## **2012 NET SALES BY PRODUCT LINE**

(percentage/millions of dollars)



### 2012 NET SALES BY GEOGRAPHIC AREA

(percentage/millions of dollars)



## REPORT PARAMETERS

In 2007, the Environmental, Health and Safety (EHS) Lead Team was organized with the purpose of significantly improving MTI's safety program and environmental performance. The Team was given the charge of providing guidance and deploying effective policies, practices, procedures and standards to enable each location to achieve these breakthrough improvements. Currently, the team is led by the Vice President of Performance Minerals, and also consists of representatives from each of the company's geographic regions and business units.

In 2009, the EHS Lead Team published the first MTI Sustainability Report summarizing the relevant sustainability aspects of the company's activities. The Team used the Global Reporting Initiative (GRI) Level C guidelines as the guide for the report. The EHS Lead Team recognized that the process of collecting and summarizing the information necessary for this report would result in a better understanding of the impacts of the activities of each business unit and location.

This fifth update reviews the key sustainability topics that are relevant to MTI's activities. We used both an internal process and feedback from MTI's stakeholders to identify and evaluate the Indicator Aspects listed in the GRI guidelines.

The data for 2012 should be compared to the baseline period of 2006 to 2008. The report is updated on an annual basis. Questions, comments and suggestions about this Sustainability Report should be directed to the following address:

#### **Investor Relations**

Minerals Technologies Inc. **Corporate Communications** 622 Third Avenue New York, New York 10017 USA

Phone: +1-212-878-1831

Email: investor.relations@mineralstech.com



## PROCESS FOR DEFINING REPORT CONTENT

The major goal of this report is to identify and quantify the key topics and indicators relevant to the company's activities. The content of this fifth update is based upon input from routine discussions with customers and investment companies as well as a formal process for soliciting input from key selected stakeholders.

This update of the MTI Sustainability Report summarizes the environmental activities of all mining and manufacturing operations owned and operated fully or in part by any of the business units operating as of December 31, 2012, including joint ventures. The report also reviews the economic and social impacts of our manufacturing, administrative, research and Steel Mill Service locationsthose steel mills where our employees provide service. These boundaries cover all operations over which MTI exercises direct control. The report does not include the activities of suppliers, nor does it cover the activities of tolling (outsourced) manufacturers. A small number of US and European tolling operations provide finished product and intermediates to MTI. MTI does not direct the activities of these tolling operations.

### This update has the following limitations:

- Some manufacturing operations do not record specific environmental metrics. Where data was not available for the reporting period, estimates were made based on similar operations or historical information. We continue to improve the process of gathering the pertinent environmental metrics from all operations.
- The company's administrative and research locations do not record energy use, water or wastewater flows or solid waste. As the total impacts from these operations are not significant compared to those of the manufacturing operations, this information has not been collected.

- No data on energy use, water use or solid waste is collected for the Minteg International Inc. Steel Mill Service locations, which are located within customers' steel mills. Typically, the Steel Mill Service crews rely upon the customer to provide energy, water and waste disposal at the application site within the steel mills. These activities are a small fraction of the overall impacts associated with those of the steel mill and have no significant effect upon the data contained in the MTI sustainability report.
- This update includes the greenhouse gas impacts of the electrical use at the Performance Minerals and Minteg manufacturing operations. At this time, MTI does not have site-specific greenhouse gas emission factors from the Paper PCC host paper mills that supply these operations with electricity. Due to the fact that the paper mills often use co-generation systems rather than public electrical suppliers, the emission factors must be gathered on an individual site basis.

### Example of MTI's Sustainability Efforts: Reduce Solid Waste & **Energy Use**

The company is implementing efforts to recover the residuals from the PCC manufacturing process or to use the residuals for agricultural or soil reclamation facilities rather than sending them to landfills. MTI is also making changes in PCC process equipment, such as modifying agitation systems, pump seals and motors to reduce energy and water demands.

# GOVERNANCE, COMMITMENTS **& ENGAGEMENT**

Minerals Technologies' governing body is its eight-member Board of Directors. Joseph C. Muscari is Executive Chairman of the Board. In addition to Mr. Muscari, the Board consists of seven independent directors. The Board of Directors has three committees—Audit; Corporate Governance & Nominating; and Compensation.

### Mechanisms for shareholders and employees to provide recommendations or direction to the Board include:

- · Stockholders and any other interested parties may communicate by e-mail with the independent members of the Board at the following address:
- independent.directors@mineralstech.com. The independent members of the Board have direct access to all messages sent to this address; the messages are monitored by MTI's office of the General Counsel. No message sent to this address will be deleted without the approval of the chair of the committee of the Board with primary responsibility for the principal subject matter of the message.
- To propose items of business for consideration at the company's Annual Meeting, written proposals must be made through the process laid out in the company's Proxy. These include: If intended to be considered at an annual meeting, the nomination or proposed item of business must be received not less than 70 days nor more than 90 days in advance of the first anniversary of the previous year's annual meeting.
- An Investor Relations contact is provided on the MTI website.
- The company has an MTI Hotline, which allows employees to report any corporate governance concerns. These concerns go to the General Counsel and are then presented to the Audit Committee of the Board.

### The primary duties of the Audit Committee are:

- To assist the Board of Directors in its oversight of (i) the integrity of the company's financial statements, (ii) the company's compliance with legal and regulatory requirements, (iii) the qualifications and independence of the company's independent registered public accounting firm, and (iv) the performance of the company's internal audit function and independent registered public accounting firm;
- · To appoint, compensate, and oversee the work of the independent registered public accounting firm employed by the company (including resolution of disagreements between management and the auditors concerning financial reporting) for the purpose of preparing or issuing an audit report or related work. The independent registered public accounting firm shall report directly to the committee; and
- To prepare the report of the committee required by the rules of the SEC to be included in the company's annual proxy statement.



## STAKEHOLDER GROUPS

MTI used both formal and informal methods to identify stakeholders and obtain input regarding the topics and indicators that are material to the company's activities. Those stakeholders who provided input include:

- Customers
- Employees
- Shareholders
- Suppliers
- Board of Directors

### Example of MTI's Sustainability Efforts: European Satellites Develop Environmental Improvement Program

Many of our business units and individual operations have tools in place to identify and monitor environmental impacts. "Working with customers at host paper mills and surrounding communities, MTI reports the progress of this initiative in a quarterly report, which is then reviewed annually with internal and external stakeholders," says Ludo Schyvinck, Director of Sales and Marketing for PCC. "An example of an initiative that has been deployed at different satellite PCC plants is a program to reduce the amount of waste (grit) from the process to be disposed to landfill."





## **ENERGY**

#### **Fossil Fuel**

The Performance Minerals and Minteq facilities use a variety of liquid and gaseous fuels, including natural gas, propane, diesel oil and Number 6 oil in process dryers, kilns and for mobile equipment. No MTI facility uses coal or other solid fuel nor does any MTI facility burn hazardous wastes as a fuel.

The reported fuel use for each site has been converted into million BTUs per ton of total production and then combined into Business Unit and company-wide metrics. This information is presented in Figure 1. Note that this chart does not include the Paper PCC facilities, as the Paper PCC process does not involve any combustion or other fuel-using operations. The only fuel used at these facilities is a very small amount for forklifts and space-heating equipment. Including the amount of fuel used within Paper PCC would have a negligible impact on the overall company usage and thus this information is not included in Figure 1.

In 2012, the Processed Minerals business unit in Adams, Massachusetts, completed a project that enabled the largest lime kiln at the site to switch from No. 6 oil to natural gas. The kiln began using natural gas in mid-July and continued to do so throughout the year. The conversion resulted in reduced energy costs for the plant and a significant reduction in carbon dioxide and other pollutant emissions. The full impact of the conversion will be evident in 2014, after Adams completes the conversion of a second kiln to natural gas, which will be completed in 2013.

MTI continues to evaluate other options for reducing energy consumption and impacts. These range from installing improved lighting in our production and administrative areas to reviewing sustainable energy sources located at our facilities. To date, on-site wind and solar options have not proven economically viable. However, the efforts to reduce overall energy use are providing steady improvements, as shown below.

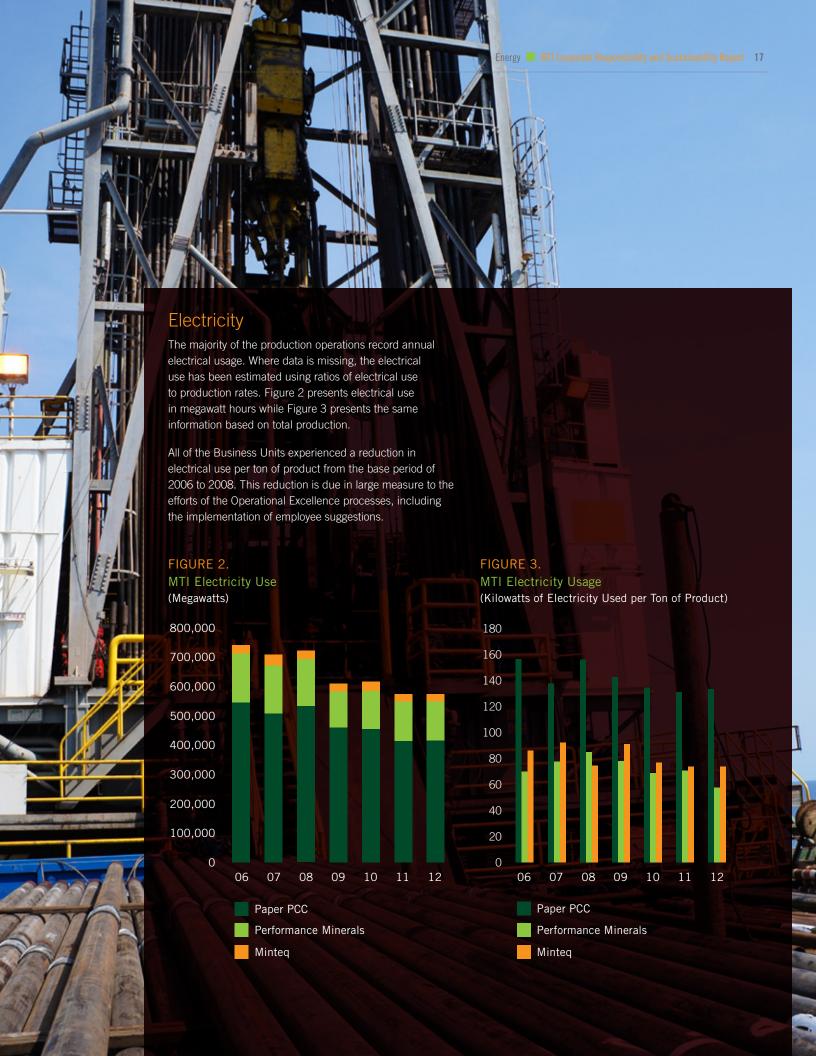
#### FIGURE 1.

#### Process Fuel Usage

(Million BTUs per Ton of Product)

Note: Paper PCC does not use process fuel and uses only an insignificant amount of mobile eqiupment fuel. Therefore, the fuel use and production values for this chart are limited to Performance Minerals and Minteg operations.





## WATER AND EFFLUENT

Figures 4 and 5 present summaries of the amount of water used and discharged by the Performance Minerals and Paper PCC operations. These Business Units use water for process and cooling purposes. The Minteg operations use only a small amount of water in preparing cast shapes and small amounts of specialized products. The amount of water used by Minteq is insignificant compared to the water use in Performance Minerals and Paper PCC and therefore, Minted operations are not included in these graphs.

Much of the water used in the PCC process is either transferred to the customer with the final product (typical filler PCC products contain 80 percent water; typical coating products contain approximately 20 percent water) or is lost via evaporation. PCC plants discharge process effluent to wastewater treatment plants operated either by the host paper mills or by local municipalities. Cooling water from PCC plants is managed in a variety of ways, including return to the host mill for use in their systems, direct discharge of clean cooling water to surface water and discharge of cooling tower blow-down to treatment operations. Water that is returned to the host mill for reuse is not considered wastewater.

The majority of the process and cooling water from Performance Minerals' facilities is discharged to surface water after treatment. A portion of the water used by Performance Minerals is reused, drains to groundwater through settling ponds or is lost through evaporation. It should be noted that much of the wastewater discharged from the Performance Minerals facility in Adams, Massachusetts, is rainwater that accumulates in the quarry and other areas of the site. Due to the characteristics of the site, much of this water joins the plant process effluent in settling and cooling ponds before being discharged to the Hoosic River. During periods of heavy rainfall, the amount of wastewater produced may often exceed the water used at this location. This affects the ratio of water use and effluent for Performance Minerals as shown in Figures 4 and 5.

### Example of MTI's Sustainability Efforts: PCC R&D Evaluating Alternative Processes

Our scientists are investigating new processes to manufacture PCC that are more efficient and environmentally friendly. One example is the company's FulFill® portfolio of technologies that increase the amount of PCC filler in paper while reducing the amount of fiber, thus reducing environmental impacts.

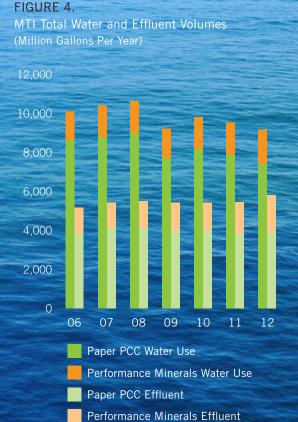


FIGURE 5. Paper PCC and Performance Minerals (Gallons per Ton of Product) 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 11 12 06 07 08 10 Paper PCC Water Use Performance Minerals Water Use Paper PCC Effluent Performance Minerals Effluent

## AIR EMISSIONS

Figures 6 and 7 summarize the greenhouse gas emissions resulting from MTI processes, mobile equipment and the indirect use of electricity, as explained below.

### Greenhouse Gas Emissions from MTI Processes

Direct greenhouse gas emissions are reported by two locations (Lifford and Adams) using site-specific methods approved by regulatory officials. The greenhouse gas emissions from the other MTI facilities that burn fuel are calculated using the World Resources Institute (2008) GHG Protocol Tool for Stationary Combustion (Version 4.0). This Tool uses emission factors from the IPCC Guidelines for National Greenhouse Gas Inventories to calculate direct emissions of carbon dioxide, methane and nitrous oxide (the three principal greenhouse gases resulting from fuel combustion). The Tool then converts the emissions of each of the gases into carbon dioxide equivalents (CO<sub>2</sub>e).

The total tons of direct carbon dioxide equivalent emissions resulting from Minteq and Performance Minerals are presented in Figures 6 and 7. Recently, this information was updated to include mobile fuel usage at the Paper PCC and Minteg operations (forklifts, front-end loaders etc.). This data also includes the amount of carbon dioxide released from the calcination of lime and magnesia. It should be noted that the Paper PCC facilities do not use fuel in any production operations, nor does Paper PCC have any combustion processes. As a result, air emissions from Paper PCC are not included in this section.

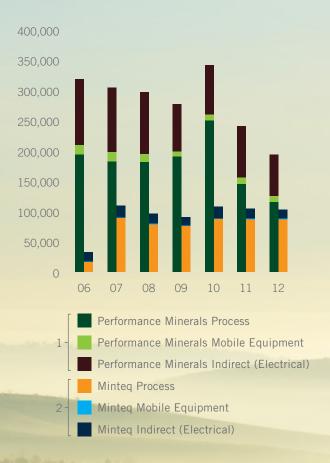
### Greenhouse Gas Emissions Resulting from MTI Electrical Use

MTI has calculated the indirect greenhouse gas emissions resulting from the production of purchased electricity provided by public utilities. Indirect greenhouse gas emissions for the Performance Minerals and Minteg operations have been calculated using the World Resources Institute 2009 GHG Emissions from Purchased Energy spreadsheet (Version 21 (1)). This tool uses a variety of emission factors for specific regional or national electrical suppliers to calculate indirect greenhouse gas emissions. The tool then converts the emissions of each of the gases into carbon dioxide equivalents (CO<sub>2</sub>e).

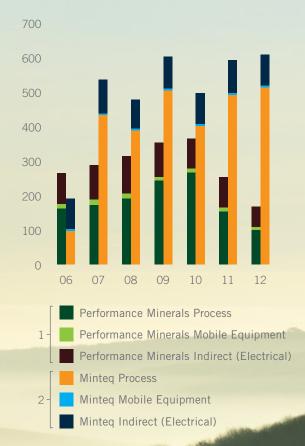
The Paper PCC facilities often use electricity generated by the host paper mill. The mills typically use co-generation systems and/or burn biomass materials (such as wood bark) to produce electricity. As a result, the emission factors for each of these facilities must be gathered on an individual site basis and will change significantly year to year based on the mill's fuel mixture. At this time, MTI is unable to obtain site-specific greenhouse gas emission factors from the Paper PCC host paper mills that supply these operations with electricity.

The lime kilns at the Performance Minerals facilities in Adams, MA and Lifford, UK transform calcium carbonate (CaCO<sub>3</sub>) to calcium oxide (CaO) with the resulting emission of one molecule of carbon dioxide from the limestone. In a similar manner, the magnesia kilns at the Minteg operation in Kutahya, Turkey transform magnesium carbonate (MgCO<sub>3</sub>) to magnesia (MgO) with the resulting emission of one molecule of carbon dioxide. These non-fuel process CO2 emissions are included in the data presented in Figures 6 and 7.

MTI Greenhouse Gas Emissions (Tons of Carbon Dioxide Equivalents (CO<sub>2</sub>e))



Greenhouse Gas Emissions per Ton Production (Pounds of Carbon Dioxide equivalents (CO<sub>2</sub>e) per Ton of Production)





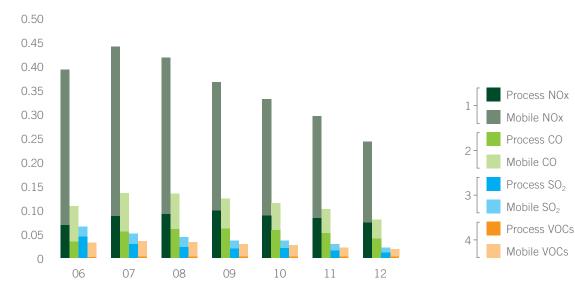
### Emissions of Criteria Air Pollutants.

The emissions of nitrogen oxides (NOx), sulfur dioxide, carbon monoxide and volatile organic hydrocarbons (VOCs) from Performance Minerals and Minteg have been calculated using total fuel usages and US EPA's AP 42 emission factors. Total emissions are provided in Figure 8 for both stationary combustion sources and mobile sources.

As mentioned previously, the Processed Minerals business unit in Adams, Massachusetts, has installed a new burner system in the site's largest lime kiln that will allow this kiln to run on natural gas rather than Number 6 fuel oil. This change is resulting in a significant reduction in direct and indirect (transporation related) air emissions for the facility. Similar, though smaller, improvements have been implemented or are underway at other MTI locations.

Since the Paper PCC process does not include any combustion or other fuel-using operations, these operations are not included in the following graphs. Paper PCC plants do not generate new emissions, but instead use combustion gas from a host paper mill source (typically a lime kiln) as the source for carbon dioxide (a raw material in the PCC process). As a result, the PCC process reduces the amount of carbon dioxide and sulfur dioxide originally contained in the combustion gas. Unfortunately, there is no data available to accurately calculate the amount of sulfur dioxide removed for all of the Paper PCC operations.

FIGURE 8. Criteria Pollutant Emissions from Minteq and Performance Minerals (Pounds of Pollutant Emitted per Ton of Product)



## SOLID WASTE

Many MTI locations keep records of the amount of process waste produced from the operations using a variety of means for calculating waste production. Where data is unavailable, the amount of waste is calculated using data from material balances or from similar operations. The amount of process waste produced by each Business Unit per ton of product is provided in Figure 9. Note that the 2012 waste volume for Minteg increased significantly due to the one-time disposal of a large amount of unusable raw material at one location. The chart also shows the adjusted waste volume per ton of product for Minteq with the impact of this one location deleted (refer to the column labeled "Adjusted 2012").

MTI has limited the definition of wastes to include only process wastes that are sent to final treatment or disposal. either offsite or onsite. MTI is not including maintenance wastes (such as used oil), packaging wastes or office trash in this section, as there are no records of these materials. MTI also does not consider unprocessed mining materials that are returned to the mine site, to be process waste. These materials have not been chemically altered and are typically not regulated substances. Finally, we are not including materials that are recycled in offsite applications in the quantities of process wastes. The primary example of this is the alkaline screenings ("grit") produced by several PCC plants, which is used as a replacement for agricultural limestone. Since this material is a product rather than a waste, it is excluded from the calculation of process waste volumes.

The various inorganic mineral process wastes produced by MTI facilities are, for the most part, inert materials and are not regulated as hazardous or dangerous materials by the regulatory agencies. Typical process wastes produced by MTI locations include the following:

- Alkaline screenings from the PCC process that are composed of calcium carbonate, calcium hydroxide and inert minerals:
- Waste limestone and talc materials from the mining and minerals operations;
- Wet calcium hydroxide and calcium carbonate solids from the settling operations at the two lime/PCC plants (Adams, MA and Lifford, UK); and
- Floor sweepings, discarded material and waste materials resulting from equipment clean-out produced from the Minteq refractory sites. These wastes contain magnesium oxides, aluminum oxides, and other components of the monolithic refractory products.

Performance Minerals has reduced the amount of solid waste produced and increased the ratio of product to mined materials by focusing on the sale of byproducts and overburden rock. Improvements such as these provide environmental and economic benefits to the mines.

As mentioned earlier, Minteg is now using recovered magnesia from spent refractories to replace a portion of the virgin calcined magnesia. This reduces the amount of material sent to landfill as well as the air impacts of producing unused calcined magnesia.

Many Paper PCC locations reuse the alkaline screenings, commonly referred to as grit. This material can be used either in agricultural applications as a substitute for agricultural lime, or in other applications where the alkalinity is beneficial. Options for grit use depend on local conditions such as the need for agricultural lime at nearby farms, the distance from the grit source to potential market, local regulations, the nature of the lime and the PCC grit and other factors. Figure 10 compares the amount of grit that is reused to that which is landfilled.



# **ENVIRONMENTAL INCIDENTS & COMPLIANCE**

In 2007, MTI adopted revised procedures to ensure consistent and prompt reporting of all situations that may have significant environmental impacts. Information on the number and impact of significant spills to the environment, presented in Table 1, is based on the information collected under these procedures.

The total number of environmental incidents and episodes (near misses) reported during this time is presented in Table 2. Note that environmental episodes were not reported until late 2007; thus, 2008 is the first year for which data is available.

The EHS Lead Team reviews each environmental incident and episode on a monthly basis to identify trends and opportunities to prevent future situations and to ensure that appropriate investigations into the causes of the situation are conducted. This information is provided to all employees through company bulletins. Specific information about situations that may affect similar operations is passed directly to these sites to ensure that preventive measures are implemented.

TABLE 1. Significant Spills from MTI Locations

Year	# of Spills	Oil/Antifreeze	PCC Slurry	Other
2006	4	120 gallons/3 spills	1500 gallons/1 spill	None
2007	6	60 gallons/3 spills	5075 gallons/2 spills	Volume unknown from one spill of calcium hydroxide solution
2008	12	50 gallons/5 spills	2800 gallons/5 spills	50 gallons/2 spills from process waste haul truck
2009	8	< 50 gallons/3 spills	None	Wastewater Release to soil (volume unknown); Alkaline release to treatment plant (300 gallons); Two acid releases to containment or treatment (estimated 1000 gallons)
2010	4	None	More than 10,000 gallons/ 3 spills	Less than 1000 pounds of dry calcium oxide during delivery operation
2011	4	None	None	Approximately 27,000 gallons of calcium hydroxide released to treatment plants (two incidents) Approximately 1000 gallons of acidic material released to wastewater treatment plant in one incident. Unknown amount of propane released in one incident.
2012	6	Less than 1000 gallons in 4 incidents	None	Small amount of lime dust released to air in one incident. Levels of mercury in plant wastewater have periodically exceeded permit limits at one location. Facility is working with treatment plant to resolve issue.

TABLE 2. Total Number of Reported Environmental Situations

Year	2007	2008	2009	2010	2011	2012
Total Environmental Incidents	23	15	11	7	7	7
Total Environmental Episodes	Not Tracked before 2008	24	23	22	19	16

### Example of MTI's Sustainability Efforts: MTI Presents Papers on Life Cycle Analysis of PCC

The worldwide Pulp and Paper industry, our largest market for our PCC products, is intently focused on sustainability. As a supplier of a major raw material for that industry, MTI has engaged in public discussions to address some of the information needs on our products. MTI accepted an invitation by TAPPI (the American Paper Makers Association) in May 2008, to delegate Ludo Schyvinck, Director of Sales and Marketing for PCC, to take part in a panel discussion on sustainability for suppliers of the paper industry. Other suppliers included DOW, BASF, and Imerys. At that occasion, MTI presented information on the Carbon Footprint of its products and processes. In December 2008, the German Industry Magazine IPW—a trade publication for the European paper industry—published an interview with Mr. Schyvinck on sustainability.

## MINIMIZING ENVIRONMENTAL IMPACT

MTI has always been sensitive to the environmental impacts of our activities at the operating facilities and the services and products provided to our customers. Two of the company's Value Statements exhibit this concern:

We manage our operations, our capital, and our business opportunities in a sustainable manner.

We serve as good stewards of natural resources, and we employ sound environmental practices to protect the communities in which we operate.

MTI continues to implement measures to minimize the environmental impacts of our operations, products and services. All of our mining operations have active reclamation programs underway. These operations are also reusing and marketing byproducts such as lime kiln dust and crusher fines to minimize the production of waste materials. We are also continuing local initiatives such as the Mohave Desert Sustainability Project and the Bighorn Sheep Monitoring program at the California mine and community educational programs at the Massachusetts operation.

Non-mining activities and services are also the focus of efforts to identify and reduce environmental impacts. Many of our products offer significant environmental benefits to the customer. The Paper PCC plant concept, where precipitated calcium carbonate is produced at the customer site using existing utilities, avoids significant transportation impacts and reduces air pollution from the paper mill. This improvement was recently recognized by the Confederation of Indian Industry (CII) when it conferred its Environmental Best Practices Award for 2012 on BILT Graphic Paper Products Limited (BGPPL) for the "most innovative environmental project." The award was presented for the "carbon sequestering at BGPPL unit Ballarpur by installation of precipitated calcium carbonate (PCC) manufacturing plant." Minerals Technologies and BILT entered into an agreement to build the 65,000-ton per year satellite PCC facility at BILT's paper mill at Ballarshah in the state of Maharashtra, India, in 2009. The satellite facility uses carbon dioxide from the paper mill in the production of PCC.

Minteg's monolithic refractory products allow steel mills to extend the life of the steel furnaces, thus reducing wasted energy for frequent shutdowns and start-ups of the furnaces. Minteg's calcium and powdered wire products also allow the steel mill to better control the quality of the finished product with less wasted material. During 2010, 2011 and 2012, Minteg has also devoted significant research and development resources towards the use of recycled magnesia recovered from spent refractories. The products that have been developed using recycled magnesia enable Minteg to reduce the use of calcined magnesia (thus reducing global air emissions) and recover a waste material that would otherwise go to a landfill. Minteg has ensured that the quality of these products continues to meet the same high standards as our products made with calcined magnesia.

MTI has a number of other ongoing initiatives designed to address specific environmental concerns. Specialty Minerals Inc. has developed a calcium carbonate product (EMforceTM Bio additive) that is designed to improve the physical characteristics of new biopolymers that are being developed to replace petroleum-based plastics. Specialty Minerals Inc. is also evaluating the use of alternative lime sources in the production of various PCC products for the paper industry. The research and development teams in Bethlehem, Pennsylvania, and Suzhou, China, are coordinating efforts to more fully integrate the PCC and kraft pulp processes. These efforts have the potential to offer significant environmental improvements to our paper mill customers.

MTI has conducted a series of life cycle assessments for specific ground calcium carbonate and precipitated calcium carbonate products to support the sustainability efforts

of our customers. The results of these studies have been published and presented at industrial seminars by company representatives.

All manufacturing operations have now implemented Lean Manufacturing systems, including 5-S, Standardized Work and Total Productive Maintenance (TPM) that allow our sites to more efficiently use all resources (raw materials, energy, labor and transportation, among others). These efforts are now extending into our support departments such as Supply Chain, Human Resources and others. As these programs take root within the company, we will continue to achieve further environmental improvements. The changes are the results of Lean activities as well as other factors such as plant closings and product lines. The increasing use of Kaizen events, Standard Work and TPM reviews is resulting in improvements to energy efficiency will become more evident in future years as MTI uses these tools to improve our efficiency.

To date, the company has not developed detailed business or company-wide goals for specific environmental improvements. We recognize this as an area of opportunity.

### Penalties & Sanctions

The number of environmental and safety sanctions, citations and penalties issued by various regulatory agencies is presented in Table 3.

The majority of the safety issues are citations and penalties assessed by the U.S. Mine Safety and Health Administration (MSHA) which has jurisdiction over the four U.S. mining operations (Adams, Massachusetts; Barretts, Montana; Canaan, Connecticut; and Lucerne Valley, California). MSHA conducts multi-day inspections of each of the mining operations at least twice each year. In the past two years, MSHA has increased both the level of scrutiny and the amount of penalties assessed. It should be noted that Specialty Minerals continues to make good progress on MSHA safety inspections by employing various processes such as Residual Risk Reduction, Near Miss Reporting, Standard Work, and Fatality Prevention techniques.

TABLE 3.

MTI Compliance Summary	2007	2008	2009	2010	2011	2012
Notices of Violation / Compliance Issues - Environmental	1	2	5	6	3	4
Penalties Assessed - Environmental	\$0	\$4,688	\$320	\$15,000	\$37,000	\$0
Notices of Violation / Compliance Issues - Safety	47	109	127	68	39	87
Penalties Assessed - Safety	\$3,746	\$78,736	\$39,393	\$10,609	\$85,774	\$26,089

## SOCIAL

### Labor Practices and Decent Work

Minerals Technologies, as of December 31, 2012, had 1,992 employees, of which 524 were professionals; 218 were in Administration; and 1,240 were directly engaged in the manufacturing of our products.

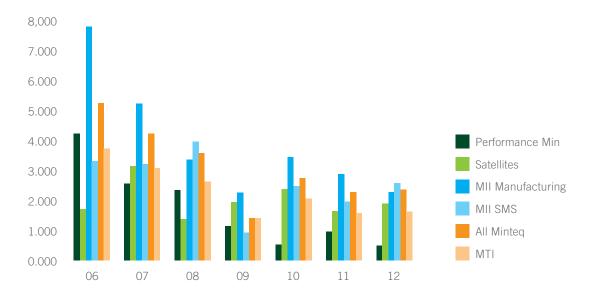
All manufacturing, Research & Development and Steel Mill Service operations have active safety programs in place. These programs are administered by site safety committees that include both management and worker representation. The individual safety programs are based on Corporate Health and Safety Standards. Facility personnel complete self-assessments to ensure that site programs meet MTI standards. Site personnel also conduct routine site safety inspections, training, and emergency planning and reporting of all injuries and near misses. We have experienced significant improvements in plant working conditions as a result of the 5S program that is practiced by all of our business units. We are also identifying

and addressing the risks present at our sites using our risk reduction and lean operating tools. As shown below, these programs have been highly effective in reducing the rates of injuries at our locations.

MTI has recorded safety statistics, including injury rates and lost days, since the company was formed in 1992. In 2007, the company's commitment to providing a safe workplace and safe products was given more emphasis with the adoption by management of a vision of zero injuries. As shown in Figures 11 and 12, this renewed focus on safety and improved work practices has resulted in breakthrough safety improvements.

Total Recordable Injuries include fatalities and any injury that requires medical treatment by a physician or other medical professional (including restricted work cases). Note that medical treatment does not include first aid. The Total Recordable Injury Rate (TRIR) is a calculated statistic that describes the rate of lost time injuries, injuries requiring medical attention and restricted work cases per 100 full-time employees in one year, as shown in Figure 11.

FIGURE 11. Business Unit Recordable Injury Rate History as of December 31, 2012 (Recordable Injuries per 100 employee years)



A Lost Workday Injury is defined as any work-related injury that renders the injured person unable to perform any regular work activity on any normally scheduled workday after the day on which the injury occurred. The Total Lost Workday Injury Rate (LWIR) indicates the number of lost time injuries per 100 fulltime employees in one year, as shown in Figure 12.

MTI has manufacturing and Steel Mill Service operations in 26 countries. Regional injury data for Asia, the Americas, and Europe (which includes operations in South Africa) is presented in Figures 13 and 14 and in Tables 4 and 5.

FIGURE 12. Business Unit Lost Workday Injury Rate History December 31, 2012 (Lost Workday Injuries per 100 employee years)

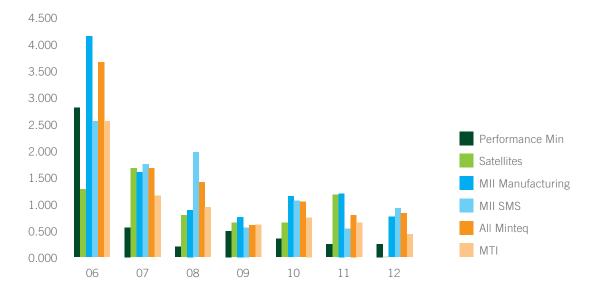


FIGURE 13. Recordable Injury Rate - Regional Comparison (Recordable injuries per 100 employees-years)

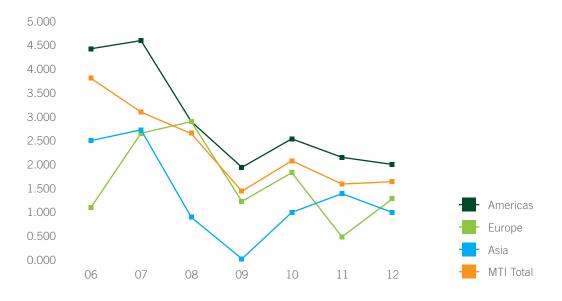


TABLE 4. Recordable rate - injuries/100 employee-years

Regions	2006	2007	2008	2009	2010	2011	2012
Americas	4.404	4.581	2.875	1.928	2.528	2.290	1.983
Europe	1.070	2.638	2.890	1.203	1.831	0.487	1.272
Asia	2.490	2.721	0.910	0.000	0.989	1.465	1.005
MTI Total	3.776	3.079	2.630	1.414	2.056	1.694	1.629

FIGURE 14. Lost Workday Injury Rate - Regional Comparison (Lost workdays per 100 employees-years)

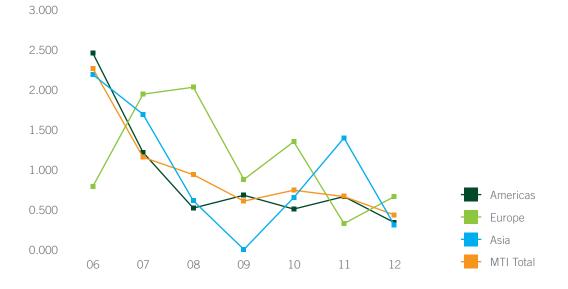
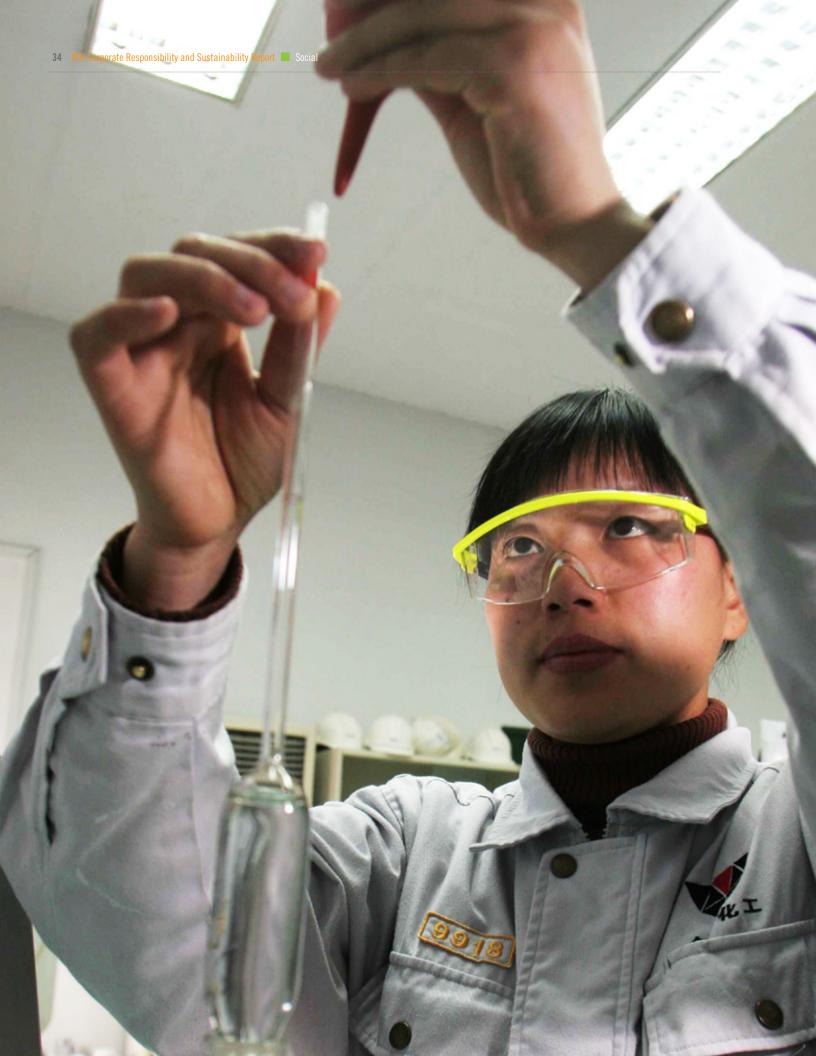


TABLE 5. Lost workday rate - injuries/100 employee-years

Regions	2006	2007	2008	2009	2010	2011	2012
Americas	2.447	1.195	0.511	0.671	0.506	0.654	0.345
Europe	0.779	1.944	2.023	0.859	1.331	0.325	.636
Asia	2.214	1.701	0.607	0.000	0.659	1.465	0.335
MTI Total	2.251	1.155	0.939	0.613	0.748	0.659	0.431



### **Human Rights**

It is and has been the policy of Minerals Technologies Inc. to conduct our business activities in a lawful and ethical manner. As a "corporate citizen" of the countries in which we do business, we have a responsibility not only to obey the law, but also to promote high standards by conducting our affairs in a clearly ethical manner. MTI has corporate policies concerning legal and ethical behavior in various specific areas. These polices were established in the firm belief that it is both right and in the interests of the company, its employees, its shareholders, industry in general, consumers and the public, to act in accordance with them.

Integrity is, and must continue to be, the basis of all our corporate relationships. The corporate policies reflected in the "Minerals Technologies Inc. Summary of Policies on Business Conduct" are expected to be understood and followed by every employee who acts on behalf of MTI. The policies are designed to maintain and enhance MTI's integrity and reputation as an outstanding corporate citizen.

Violation of these polices could, in many instances, subject the company and the individuals involved to criminal or civil actions, fines, and lawsuits for damages. On doubtful matters, employees are encouraged to seek and receive advice in advance of taking action. Employees can obtain advice concerning these policies from the persons to whom they report, from the General Counsel of MTI, or from their designated representative.

The company requires designated employees to complete Ethics and Code of Conduct on-line compliance training. This training includes modules on a variety of compliance topics covered in the code and underlying Company policies, such as discrimination, anti-bribery and antitrust. As part of this training, the employee is also required to electronically certify that they have reviewed, understand and are in compliance with the Company's code of conduct and underlying policies.

In addition, Group/Division heads and all elected corporate officers are required, on an annual basis, to review the Company's "Summary of Policies on Business Conduct" and attest to their (1) personal compliance with the policies, (2) endeavor to ensure compliance with the policies by those who report to them, and (3) being unaware of any violations.

We do not tolerate child labor, forced labor or discrimination, and have not identified any operations that pose a significant risk for incidents of child labor, or forced or compulsory labor.

### Society

As a matter of corporate policy, Minerals Technologies has a prohibition against unrecorded funds or assets; false or artificial entries in books or records; and misappropriation of assets of the company and its subsidiaries.

In addition, the company expects its employees to comply with the Foreign Corrupt Practices Act, which prohibits the making or offering of any payment to any foreign official to induce that official to affect any government act to assist the company in obtaining or retaining business.

The company has not analyzed its business units for risks related to corruption, but, as stated above, it is the responsibility of Group and Division heads and corporate officers to communicate these policies to all of their employees.

The company has had no actions, nor has it been fined, for any incident of corruption.

## **Product Responsibility** Workplace Safety

The first item addressed under MTI's Value Statements is:

We place the health and safety of people ahead of all else.

The safety of our workforce, visitors, customers and neighbors is the primary concern of MTI. Responsibility for health and safety is shared by all employees. In 2010, Management adopted a goal of becoming a world-class leader in safety by 2014, as evidenced by a lost workday injury rate of less than one injury per 1000 employee-years (a rate of less than 0.1). In order to achieve this goal, MTI has combined the benefits of a strong safety program with the improvements realized by the Lean initiatives to identify and reduce risks and promote safe work behaviors. MTI is using Lean and Safety as complimentary systems, such as combining 5S and safety audits, conducting joint Standard Work and Job Safety Analysis exercises and including a Residual Risk Reduction activity in every Kaizen event.

Risks associated with existing activities, processes and materials are also identified and controlled through fatality prevention assessments, residual risk reduction programs, job safety analyses and development of standard work practices. These initiatives help sites reduce the hazards of existing operations and allow new employees to perform their functions safely.

The focus on safety and improved work practices has resulted in breakthrough safety improvements. Everyone in MTI is committed to seeing these improvements continue in the future.

### Raw Material and Process Safety

MTI sites conduct a detailed environmental, health and safety review of all new chemicals proposed for use at the facility. In addition, new or modified processes or operations at new or existing locations are evaluated to

identify potential risks or hazards during the design phase. As a result of these reviews, the sites are able to implement appropriate control and prevention measures to address potential concerns.

### **Product Stewardship**

MTI has long supported research efforts to evaluate the health and safety impacts of the minerals that form the basis of our industry. MTI continues to support the work of the North American Industrial Minerals Association and the American Chemical Council's Crystalline Silica Coalition to improve the basic science and understanding of the health effects of exposure to minerals, crystalline silica and similar materials which are found in all naturally occurring substances. MTI also supports efforts by these organizations and ASTM International to improve the analytical methods used to define and measure levels of crystalline silica and other substances in mineral products. Accurate measurement and identification methods are key to assisting health agencies and industry developed standards for safe levels of exposure to mineral products.

### Regulatory Approvals

MTI manufactures products for applications that require approvals from regulatory bodies for their use in direct and indirect contact applications. Specific precipitated calcium carbonate, ground calcium carbonate/limestone, and talc products are approved for applications in food, pharmaceuticals, nutritional supplements, medical devices, as well as in the manufacture of materials that come into contact with these consumer products.

Where applicable, MTI's products are strictly monitored for compliance to regulatory requirements, such as those of the U.S. Food and Drug Administration (FDA), United States Pharmacopeia (USP), European Pharmacopeia (EP), Japanese Pharmacopeia (JP), Clean Water Act, California Proposition 65, European Directives, Food Chemical Codex, CONEG Model Legislation (Heavy Metals), Chemical Inventory Lists, NAFTA, and many other regulations.

#### RFACH

MTI has completed the registration of all applicable substances under the European REACH (Registration, Evaluation, Authorisation and Regulation of Chemicals) regulation. Mineral products which are exempt from registration (Section 7 of Annex V) of the REACH regulations have not been registered.

Both Specialty Minerals and Minteq played leading roles in the registration of calcium carbonate and calcium metal, respectively. MTI accepted the responsibility to act as the President of the Consortium of Calcium Carbonate manufacturers as part of the EU regulation known as REACH (Registration, Evaluation, Authorisation and Regulation of Chemicals). Ludo Schyvinck from the Brussels office of Specialty Minerals acted as the Chairman of the Board of the Consortium. In addition, Minteg registered and acted as the lead registrant for calcium metal (both manufacturer and importer). In this manner, MTI assumed a key leadership role in ensuring that the customers and other downstream users of these products are fully aware of any environmental, health or safety concerns associated with the use of the products throughout the life cycle chain.

Minteq was a member of the Euromines consortium for Magnesium Oxide which led to its placement in the Annexe for exemption status. Richard Griffin, Global Director R&D, was the member representing Minteg.

#### Customers

MTI has in place a process for monitoring customer loyalty and overall satisfaction. This system is designed to listen to the voice of the customer and identify opportunities for improvement related to our products and services. The satisfaction surveys are designed to capture relevant information related to how MTI is meeting customer expectations, as well as gaining a better understanding of

the customer's future needs. Through the effective analysis of the data received, our main goal is to identify value added solutions for our customers. Below are some key characteristics of our system:

- Customer surveys are issued electronically.
- Surveys are issued on a monthly basis.
- Surveys are issued to multiple contacts within a customer to ensure that the opinion of different functions is properly captured.
- The survey results are evaluated on a quarterly basis and summary reports are reviewed with senior management.
- The organization has established a performance goal of >75% satisfaction (Scale 0-100).
- Account managers are directly responsible for follow up with customers.

## **ECONOMIC**

MTI understands the importance of the economic value we provide for our shareholders, customers, employees and those communities in which we operate. In 2012, thanks to a dedicated work force, we were able record our second straight annual record earnings in company history.

Following are some highlights of our financial performance for 2012:

- Earnings per share of \$2.09
- Net income of \$741 million.
- Maintained 2008 and 2009 expenses in Sales & Marketing Administrative and R&D below 2006 levels.
- Debt to capital ratio of approximately 12 percent.
- The company paid out approximately \$4.4 million in dividends to shareholders in 2012.

#### Financial implications and other risks and opportunities due to climate change.

A portion of the company's businesses are affected by regulations designed to combat Climate Change. Europe in particular has engaged in commitments under the Kyoto protocol to drastically reduce its greenhouse gas emissions. One of the instruments designed to reduce emissions is a Cap and Trade system called the ETS (Emission Trading Scheme for Carbon). Lime manufacturing (a major supplier of raw materials for MTI) and pulp and paper making (SMI's primary customer) are both regulated under this scheme which has been in place since 2005. The principle of that scheme is that installations receive a certain amount of rights (Allowances) for CO2 emissions.

Depending on the amount of effectively emitted CO2, such an installation has to buy or can sell Allowances on a Trade Market. MTI monitors on an on-going basis to what extent changes in the European Regulations, reduction of allocated allowances and the price of carbon on the market can have a financial impact on its business in Europe.

Climate change regulations in the United States are regulated at the local, state and federal levels. For instance, the US Environmental Protection Agency (EPA) has issued a number of regulations dealing with climate change. EPA requires the reporting of greenhouse gas emissions from major existing operations. The only MTI facility that meets the greenhouse gas reporting requirements is the Performance Minerals plant in Adams, MA. EPA has also issued regulations that require facilities to obtain approvals before installing projects which result in significant increases of greenhouse gas emissions. No MTI facility has met the criteria that require these permits. MTI is closely monitoring both the local and national activities for any impacts to our suppliers, customers or operations.

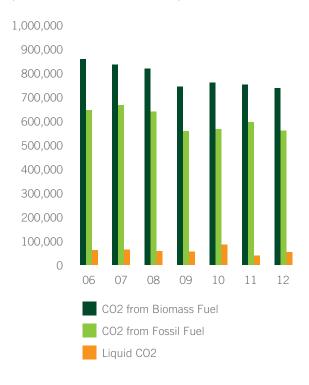
The paper industry is one of the industries that has been especially affected by the European ETS and other environmental regulations in place throughout the world. MTI's Paper PCC operations have provided a significant benefit by permanently sequestering a portion of the fossil fuel based carbon dioxide emissions produced by the host paper mills where the PCC plants are located. MTI has estimated the total amount of carbon dioxide removed from the paper mill emission sources (primarily the pulp mill lime kilns and recovery boilers) which is then converted to PCC. In order to estimate the amounts of biomass and fossil-fuel carbon dioxide that are converted to PCC, we have assumed that the one-third of the emissions from pulp mill lime kilns is fossil-fuel CO2 while the remainder is biomass CO21. Speciality Minerals Inc. has also assumed that all of the emissions from recovery boilers or other sources at paper mills that use wood process fuels are biomass emissions. Figure 15 illustrates the amount of carbon dioxide absorbed from biomass and fossil fuel sources, as well as the amount of liquid carbon dioxide used in the PCC process. This table is based upon production data and the sources of carbon dioxide at our host paper mills.

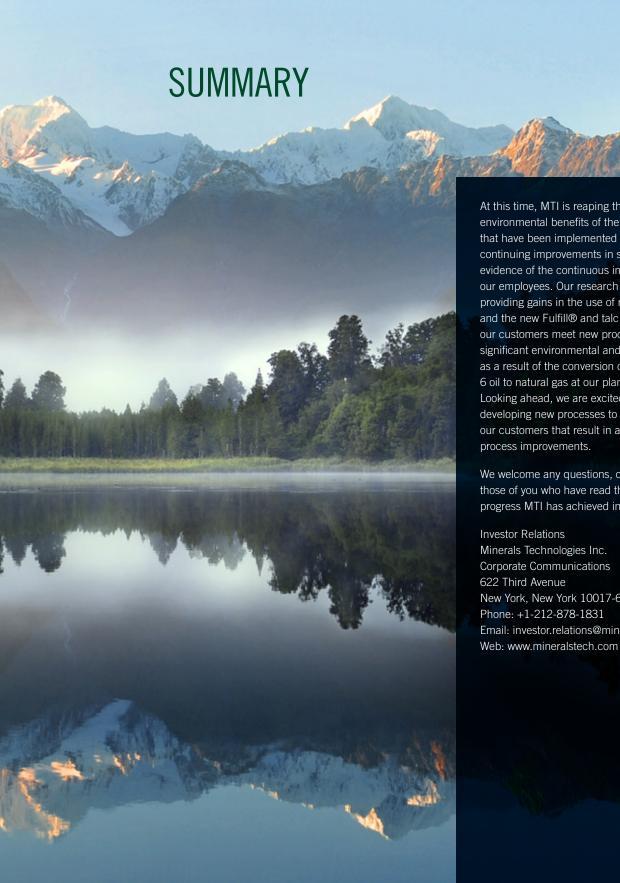
<sup>1</sup> R. Miner & B. Upton, "Methods for Estimating Greenhouse Gas Emissions from Lime Kilns at Kraft Pulp Mills", ENERGY, Volume 28, August, 2002. Pages 729 - 738



The Paper Research and Development team is currently exploring potential technologies that would allow SMI to produce PCC filler and coating products in a manner that reduces or eliminates the requirement to use calcined lime as a raw material. While these efforts are at a very early stage, they offer opportunities to continue to reduce the overall environmental footprint of both the SMI operation and that of our host mill and customers.

FIGURE 15. Carbon Dioxide Absorbed by Paper PCC Plants (Tons of Carbon Dioxide Absorbed)





At this time, MTI is reaping the economic, safety and environmental benefits of the Lean and safety systems that have been implemented since 2007. The past and continuing improvements in safety and productivity are evidence of the continuous improvement efforts of all of our employees. Our research and development activity is providing gains in the use of recycled magnesia products and the new Fulfill® and talc products that are helping our customers meet new product demands. We anticipate significant environmental and operational improvements as a result of the conversion of the lime kiln from Number 6 oil to natural gas at our plant in Adams, Massachusetts. Looking ahead, we are excited about the potential of developing new processes to produce mineral products for our customers that result in additional environmental and process improvements.

We welcome any questions, comments or suggestions from those of you who have read this report and followed the progress MTI has achieved in the past few years.

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