



ADVANCING  
FORMULAS FOR  
SUSTAINABILITY

SUSTAINABILITY REPORT

**Chevron  
Phillips**  
Chemical Company LLC

## Sustainability: The Only Choice

At Chevron Phillips Chemical, we embrace our responsibilities as a leading corporate citizen. That's why every day we strive to operate in a manner that promotes economic growth and societal advancement in a safe, secure and environmentally responsible way -- and we encourage the same from our customers, suppliers and businesses with whom we work.

We are committed to meeting the highest standards of corporate citizenship by protecting the health and safety of our employees and guests; preserving the environment and conserving natural resources; and creating a positive legacy in the communities in which we do business. We place a strong emphasis on continuous improvement by learning from our experiences and those of others, and applying scientific, economic and technical analysis to adopt and deploy best practices across the entire enterprise.

This combination of thoughtful action, shared responsibility and continuous improvement is the foundation of Chevron Phillips Chemical's sustainability philosophy. We integrate the broader meaning of the word "sustainability" into every aspect of our business and make impactful changes that benefit the global community to which we all belong.

To be a trusted petrochemical leader requires open communication and active engagement. In this report, we demonstrate our ongoing commitment to the environment, to our communities and to our stakeholders. This report provides transparency for you to judge our efforts to continuously improve the sustainability of our operations, including how we operate and where we are headed. For Chevron Phillips Chemical, being excellent stewards of the environment, contributing to the advancement of society and creating economic value for our stakeholders isn't simply the best choice: it is the only choice. ●

*We welcome your feedback.*

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## A Message from our CEO

A sustainable company excels at protecting the health and safety of its workforce and guests; acts as a responsible steward of the environment as it manufactures its products and moves them through commerce; creates economic value for its broad array of stakeholders; and advances the greater interests of society by achieving all these while improving the quality of life of those touched by its products. At Chevron Phillips Chemical Company, we produce petrochemicals and polymers that are essential to manufacturing over 70,000 consumer and industrial products.

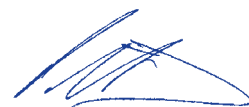
Our company has a long history of leading corporate citizenship. Both of our owner companies are conscientious environmental, health, and safety stewards, a philosophy that we inherited upon our formation. From the beginning, we deployed our Tenets of Operation to serve as the guiding principles for how we conduct ourselves and our business. As we grew, we deepened this commitment with the implementation of our Operational Excellence System,

a management system that we use worldwide to set goals for continuous improvement; provide clarity of expectations for our activities and use of resources; assess and manage risks; gain stakeholder input; and, rigorously audit our performance against operational objectives and compliance requirements.

Today, our sustainability efforts are aimed at creating a comprehensive approach to enhancing performance in a safe and socially responsible way. We understand that we must be able to improve the lives of today's society without compromising the ability of future generations to do the same. We are committed to acting with transparency and with the highest ethical and environmental standards across our business; and we expect the same level of commitment from everyone with whom we do business. We deliberately choose to work with those organizations and individuals who share our values and are willing to work with us to create a sustainable future. We work to extend our influence internally and externally to embed new thinking and better ways of collaboration within our business and along our value chains.

We strive to be active and responsible citizens in the communities in which we operate and encourage our employees to do the same. Since Chevron Phillips Chemical's inception in 2000, we have invested more than \$15 million and our employees have volunteered thousands of hours in communities where we live and work. We also support our neighbors by operating safely, complying with local laws and respecting local cultures, using local vendors and suppliers, and paying local taxes to maintain the infrastructure. We develop and implement technologies to increase resource efficiency, decrease environmental emissions, and reduce waste.

We are convinced that sustainability is a business imperative for Chevron Phillips Chemical. While we are proud of our accomplishments and have made significant strides in laying the foundation for future success, we are mindful that we must continue to strengthen our systems and processes to improve. As you will read in this first Sustainability Report, we believe we are well on our way to doing so. ●



Peter L. Cella  
CEO, Chevron Phillips Chemical



“We strive to be active and responsible citizens in the communities in which we operate and encourage our employees to do the same.”

**PETER L. CELLA**  
CEO, Chevron Phillips Chemical



# About Chevron Phillips Chemical

Chevron Phillips Chemical Company LLC was formed on July 1, 2000, when Chevron Corporation and Phillips Petroleum Company combined their worldwide petrochemical businesses. Chevron and Phillips 66 and their wholly owned affiliates each continue to own 50 percent of Chevron Phillips Chemical.

Chevron Phillips Chemical is one of the world's top producers of olefins and polyolefins and a leading supplier of aromatics, alpha olefins, styrenics, specialty chemicals, piping, and proprietary plastics. We produce chemical products that are essential to manufacturing over 70,000 consumer and industrial products.

The company is headquartered in The Woodlands, Texas, has more than \$8 billion in assets, has interest in 38 manufacturing facilities worldwide and has approximately 4,700 employees.

## Joint Ventures

*Saudi Chevron Phillips Company* (SCP, in operation since 2000) and *Jubail Chevron Phillips Company* (JCP, operational in 2008) are 50/50 joint ventures between a Chevron Phillips Chemical subsidiary and the Saudi Industrial Investment Group (SIIG). The SCP and JCP joint venture plants, commonly referred to collectively as "S-Chem," represent Chevron Phillips Chemical's investment in Saudi Arabian assets.

*Saudi Polymers Company* (SPCo) is a joint venture company formed in 2007, owned by a Chevron Phillips Chemical subsidiary (35 percent) and National Petrochemicals Company (Petrochem) (65 percent), to execute a third major project in Saudi Arabia. Construction began in January 2008 and the project is transitioning to commercial production in 2012.

*Qatar Chemical Company Ltd.* (Q-Chem) and *Qatar Chemical Company II Ltd.* (Q-Chem II) are joint ventures between a subsidiary of Chevron Phillips Chemical (49 percent) and Qatar Petroleum (51 percent).

Q-Chem commenced operations in 2003, while the Q-Chem II project broke ground in 2005 and began operations in 2010. The new Ras Laffan Olefins Company (RLOC) was inaugurated in 2010 featuring a world-scale ethylene cracker that delivers ethylene feedstock to the company's Q-Chem II facility and to a partner Qatofin facility. The RLOC partnership is operated by Q-Chem and owned 53.15 percent by Q-Chem II, 45.85 percent by Qatofin and 1 percent by Qatar Petroleum. Ethylene produced at RLOC is shipped from Ras Laffan to Mesaieed via a purpose-built 133 km pipeline.

*Chevron Phillips Singapore Chemical* (CPSC) was incorporated in April 1980, and is a joint venture between Chevron Phillips Chemical (50 percent), Singapore Economic Development Board Investments (30 percent) and Sumitomo Chemical (20 percent). CPSC is located on Jurong Island; a world-class industrial hub located a mile off the Singapore mainland. CPSC is a part of the Singapore Petrochemical Complex, home to several major chemical company facilities. Construction of Plant

1 with one reactor was completed in 1984 with a second reactor added in 1987, and Plant 2, adding another two reactors, was completed in 1997.

*K R Copolymer Co., Ltd* (KRCC) is a joint venture company with ownership by Chevron Phillips Chemical (60 percent) and Daelim Company (40 percent). KRCC was formed in February 2000. The plant is located in the Yeosu Petrochemical Complex, which is the largest and newest petrochemical complex located on the southern-most coast of South Korea.

Chevron Phillips Chemical built the largest loop slurry high-density polyethylene plant in the world at its Cedar Bayou, Texas, complex and shares production on a 50/50 basis through a production sharing venture with Ineos.

Through a joint venture with The Dow Chemical Company (now Styron) *Americas Styrenics LLC* was formed in May 2008. Americas Styrenics is a combination of the second largest polystyrene producer in the Americas and the third largest styrene producer in the Americas. ●



## Research & Technology

Chevron Phillips Chemical has three research, technology and quality control centers worldwide. These facilities provide full-scale petrochemical and polymer research, including new catalyst development, product and process development, and commercial process support. The company holds more than 2,000 domestic and international patents and patent applications, and employs more than 250 scientists, researchers and engineers.

Research and technology facilities conduct a full range of research activities, including laboratory/bench and pilot scale experimentation, analytical and mechanical testing, patent support, and technical and service support for customers worldwide. Our state-of-the-art plastics technical center is equipped with the latest processing and testing technology for molding and extruding polymer and copolymer resins.

Chevron Phillips Chemical's worldwide operations are supported with the latest technological advances and process improvements by the efforts of our research and technology personnel. Chevron Phillips Chemical continues to build on a long history of scientific discoveries. Our proprietary loop-slurry process for high-density polyethylene production is one of the most licensed processes in the world with more than 80 commercial reactor facilities utilizing the technology.

Other technological achievements and proprietary technology include:

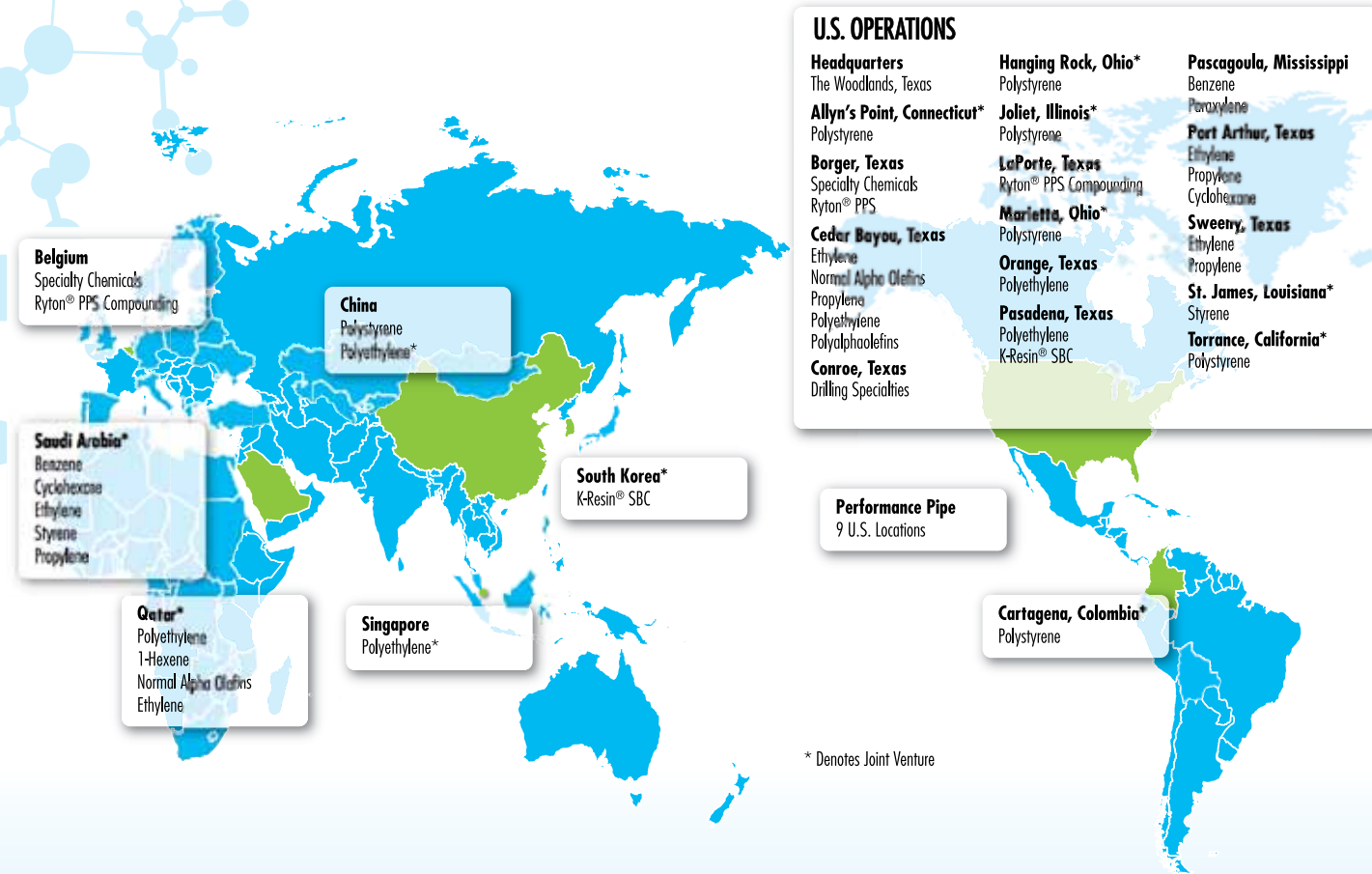
- On-purpose 1-hexene technology
- Proprietary primary normal alpha olefin technology
- Ryton® PPS generation V process
- Tapering technology for K-Resin® SBC
- Methyl mercaptan process and technology
- Aromax® catalyst and production process for aromatics
- First and second generation functional drilling fluids
- Polyalphaolefin stability and low temperature performance enhancements ●

## Primary Brands

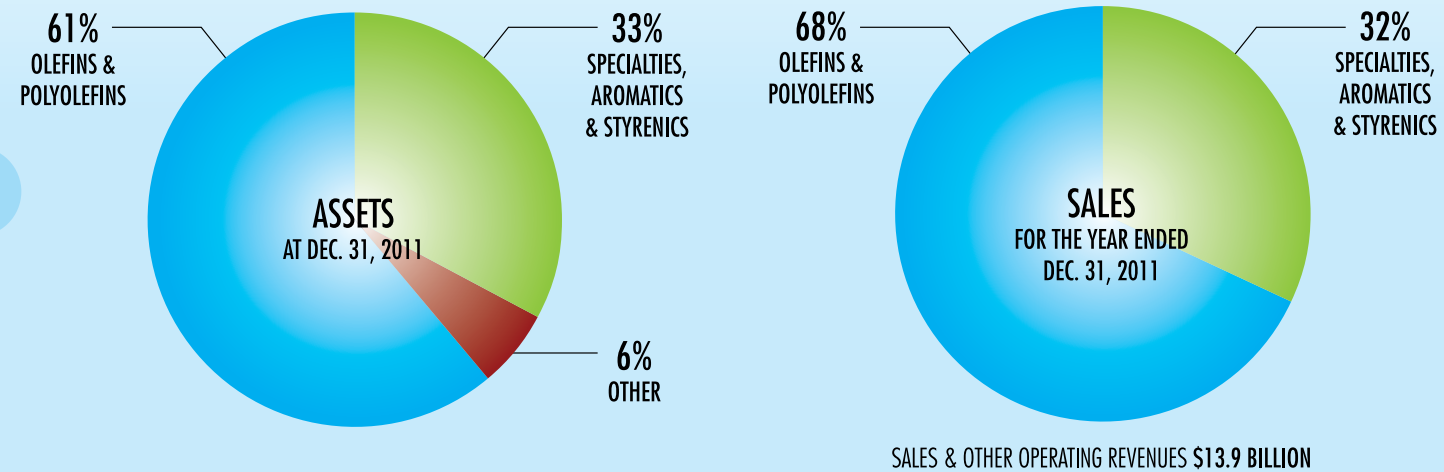




## Production and Research Facilities



## Assets and Sales for the year ending Dec. 31, 2011



## Leadership

Chevron Phillips Chemical is governed by its Board of Directors comprised of eight representatives, under the terms of a limited liability company agreement. There are three voting representatives each from Chevron and Phillips 66, and the chief executive officer and the chief financial officer of Chevron Phillips Chemical are non-voting representatives. Certain major decisions and actions require the approval of the Board. All decisions and actions of the Board require the approval of at least one representative each of Chevron and Phillips 66. ●



**PETER L. CELLA**  
President & CEO



**MARK LASHIER**  
EVP Olefins & Polyolefins



**DAN COOMBS**  
SVP Specialties, Aromatics & Styrenics



**TIM HILL**  
SVP, Legal and Public Affairs,  
General Counsel & Corporate  
Secretary



**TIM LEVEILLE**  
SVP, CFO & Controller



**RICK ROBERTS**  
SVP Manufacturing



**PEGGY COLSMÁN**  
VP & Chief Information Officer



**RON CORN**  
VP Corporate Planning  
& Development



**DENNIS HOLTERMANN**  
VP Research & Technology



**DON LYCETTE**  
VP Environment, Health,  
Safety & Security



**GREG WAGNER**  
VP Human Resources



**EDD DUNLAP**  
General Manager Auditing



# Operational Excellence

Chevron Phillips Chemical continued our parent companies' commitment to operating in a safe and responsible manner. Building upon heritage systems, Chevron Phillips Chemical developed and implemented a new system to meet the important challenge to conduct our business in a safe, secure, injury-free and environmentally responsible manner. In 2007, our company deployed its Operational Excellence System to establish a global framework for managing the health and safety of our employees and contractors as well as operating responsibly within our communities.

Our Operational Excellence System is used worldwide to:

- Set goals for improvement,
- Provide alignment of activities and resources,
- Assess and manage risks,
- Gain stakeholder input, and
- Rigorously audit our performance against operational objectives and compliance requirements.

Each day we strive to conduct our business in a safe, secure, injury-free and environmentally responsible manner. We strive to make optimal use of the resources we consume and minimize emissions and waste. We use our Operational Excellence System to recognize and reduce the risks of our products throughout their lifecycles.

We are committed to reducing risks in our operations to safeguard our employees, contractors, and the communities where we operate and engage in business activities. Through Operational Excellence we openly communicate our results and welcome the input of our employees and contractors, regulatory agencies, our communities, our customers and other interested stakeholders.

Our Operational Excellence System incorporates a "Plan-Do-Check-Act" Model to achieve continual improvement. It requires that each facility and product line be formally audited by our corporate environment, health, safety and security department. The Operational Excellence System reduces operating risks and promotes regulatory compliance. ●



## RESPONSIBLE CARE<sup>®</sup>

OUR COMMITMENT TO SUSTAINABILITY

As a member of the American Chemistry Council (ACC), Chevron Phillips Chemical participates in the Responsible Care<sup>®</sup> program for its domestic petrochemical manufacturing facilities, product lines, headquarters, and research and technology operations. Responsible Care<sup>®</sup> embraces the development and application of innovative chemistry, helping our industry contribute to sustainable development while allowing us to meet the world's growing need for essential chemicals and the products those chemicals make possible. Chevron Phillips Chemical's Operational Excellence System is designed to fulfill ACC's Responsible Care<sup>®</sup> Management System requirements. ●





# Safety Performance

At Chevron Phillips Chemical, safety is more than a priority - it is ingrained in our company culture. Our "Target Zero" safety philosophy ensures that both domestic and international facilities practice stringent processes to maintain the safe operation of company assets around the globe.

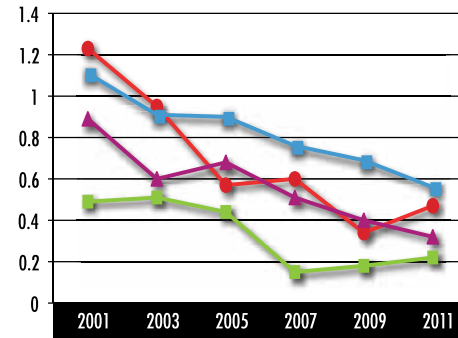
Since 2002, Chevron Phillips Chemical has decreased the combined employee and contractor recordable incidence rate by 52 percent. Seventeen of 20 eligible U. S. sites have achieved the STAR designation through OSHA's Voluntary Protection Program. Nine of our facilities have completed five years or more without a recordable injury or illness and six facilities have completed all 11 years of operation since formation of Chevron Phillips Chemical without a single recordable injury or illness.

Our progress is the result of the commitment of our entire workforce and the success of our Operational Excellence System. Each year, we continue to see increased employee involvement and leadership support, expanded Behavioral Safety Processes at all facilities, increased involvement of cross-functional Employee Safety Networking and Action Teams, and an increased focus on contractor safety.

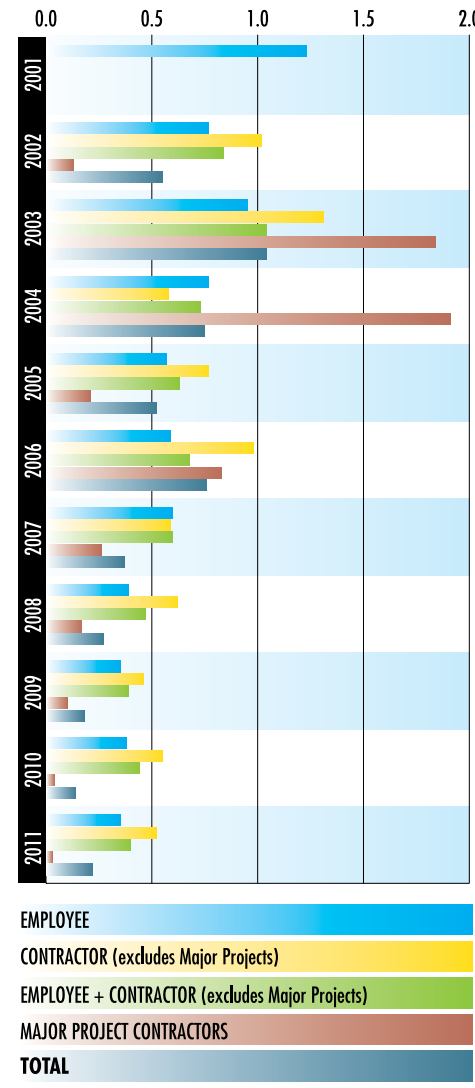
Management, employees and contractors are expected to reinforce safety expectations and ensure competence in safety matters inherent to their roles. The company provides safety leadership training for executives, managers, professionals, and hourly employees that are tailored for their respective responsibilities.

We remain focused on continuing to improve our safety performance and protecting the health and safety of our employees, our partners and the communities in which we operate. ●

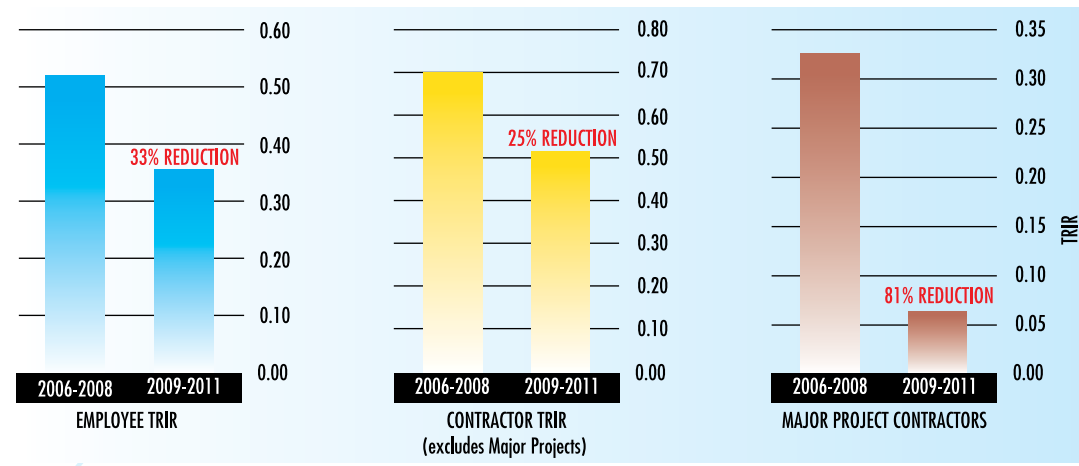
## Employee and Contractor Performance vs. ACC Member Companies<sup>2</sup>



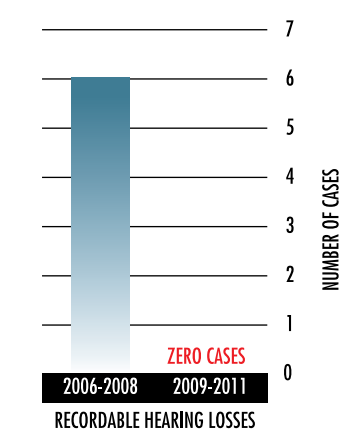
## Safety Performance<sup>1</sup>



## Total Recordable Incidence Rate<sup>1</sup>



## Hearing Losses<sup>1</sup>



## Tenets of Operation

The achievement of Operational Excellence is ultimately determined instant-to-instant, day-after-day, by the actions of employees and contractors through use of our Tenets of Operation. The Tenets provide a universal code of conduct to guide decision-making by all employees and contractors for working safely, and is viewed as a "license to act." Our company's Leadership Team conveys its priorities through the Principles shown below - Work safely or not at all; There is always time to do it right; and, If it's worth doing, do it better.

The Tenets empower Chevron Phillips Chemical employees and contractors at all levels of the organization to work safely and to respond consistently and appropriately in a timely manner, thus preventing injuries and incidents. At Chevron Phillips Chemical, we believe that safety is everyone's responsibility. Any employee or contractor has the right and obligation to stop any work activity deemed unsafe. This corporate philosophy, supported by the Tenets and our Operational Excellence System, helps our employees arrive at work and go home safely while targeting zero injuries or incidents. ●







## Process Safety

At Chevron Phillips Chemical, we focus on effectively managing process safety to help prevent incidents and manage key risks inherent to our business.

Process safety is a cornerstone of Chevron Phillips Chemical's Operational Excellence System. Process safety is core to protecting people and ensuring asset integrity in addition to helping drive the company's growth and economic stability.

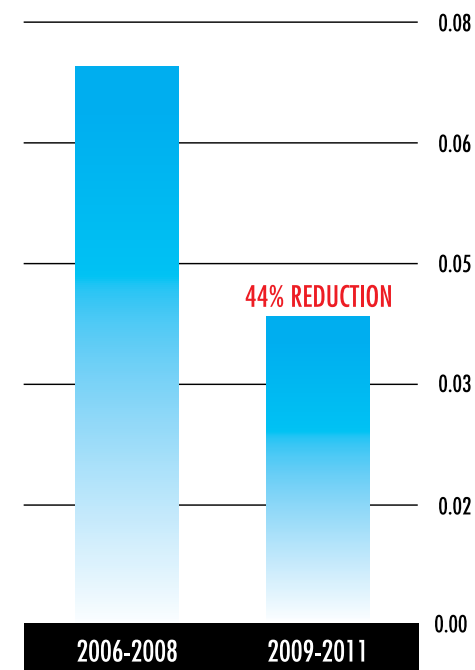
Our process safety systems meet and in many cases exceed industry norms. While maintaining consistency with industry standards, our internal standards provide an extra level of accident prevention assurance. Results of process safety indicators are reviewed monthly by Site Leadership Teams and periodically by the Board of Directors and its EHS Committee, EHS Policy Committee and Chevron Phillips Chemical's Leadership Team. We strive to continuously improve our process safety systems and procedures

by placing special emphasis on bolstering protection systems designed to assist in incident avoidance.

During 2011, we completed one of five major process control room projects, which focus on improving safety for building occupants. Many auxiliary building projects continue with the goal of providing safe work locations for plant personnel who must remain onsite during safety incidents. We also deployed additional training to enhance our process safety culture. By focusing on the human element, we hope to better understand, predict and influence behavior to maintain operational discipline.

While we continue to maintain a healthy sense of vulnerability to our safety risks, our focus on process safety is critical to ensuring we effectively manage the types of risks that could threaten people and the company's financial strength and reputation. ●

### Tier 1 Process Safety Event Rate<sup>3</sup>



## Security

Chevron Phillips Chemical strives to provide a safe and secure environment for personnel, contractors, clients and visitors. To that end, our Global Security team has developed and implemented a Security Management System that is aligned with the Operational Excellence System, featuring structured security programs to protect personnel, assets, operations, information and company reputation in a dynamic threat environment. In addition, Global Security has developed and published a variety of security guidelines, best practices, and global operational excellence procedures including a security vulnerability assessment methodology, alert levels and security response measures and security incident reporting guidelines. We take pride in maintaining full compliance with applicable domestic and international security regulations. ●



## Emergency Response Preparedness

While we manage our businesses with the goal of preventing incidents, Chevron Phillips Chemical maintains a strong capability to respond to operational emergencies to minimize the potential impact of incidents. Emergency response teams, comprised of Chevron Phillips Chemical personnel and both local and regional experts, stay well-prepared by undergoing frequent emergency response training, briefings and drills covering a gamut of scenarios including product spills, fires, explosions, natural disasters and security incidents. ●





# Energy Efficiency & Environmental Performance

Chevron Phillips Chemical recognizes that to grow our business as required to help meet the increasing global demand for petrochemicals, we must do so in a manner that protects the world's land, water and air resources. We have assessed baseline emissions, and our ongoing monitoring demonstrates that our energy efficiency measures have resulted in lower emissions and a reduced carbon footprint.

At Chevron Phillips Chemical, we strive to conduct business in a safe, secure, injury-free and environmentally responsible manner. Chevron Phillips Chemical is committed to comply with federal, state and local environmental regulations.

To support these goals, Chevron Phillips Chemical's Operational Excellence System promotes internal consistency, while encouraging continuous improvement in environmental performance.

## Energy Efficiency and Conservation

Chevron Phillips Chemical's energy data reflect our total energy consumption, including both energy consumed from fuels as by-products and the energy purchased and consumed by our manufacturing sites (purchased fuel, electricity and steam).

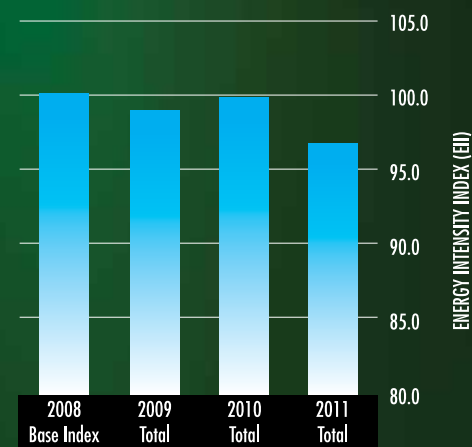
Our energy consumption data are compiled in accordance with the methods used by American Chemistry Council for the ACC Energy Efficiency and Greenhouse Gas Annual Survey.

Because Chevron Phillips Chemical is a diversified chemical company that operates a variety of process plants, we use an Energy Intensity Index that establishes a baseline expected energy consumption per pound of product for each unit to monitor the company's energy reduction progress. The Energy Intensity Index is a ratio of the actual energy consumed over an expected baseline energy number. Chevron Phillips Chemical's 2011 Global Annual Energy consumption was 132 trillion Btu. In 2011, the company reduced its Energy Intensity Index by 4.510 trillion Btu, or 3.4 percent, or enough energy to power 85,000 homes for one year.

Chevron Phillips Chemical has implemented an Energy Efficiency and Conservation Program with the goal to institutionalize an Energy Management System that will enable our U.S. manufacturing sites (and eventually all company sites worldwide) to optimize energy consumption and make energy conservation part of the routine decision-making process. Energy Best Practice Teams from each of our eight

### US Manufacturing Energy Intensity<sup>4</sup>

Actual Energy Consumed Divided by Expected Energy Consumption



domestic manufacturing locations are tasked with the capture and documentation of energy management practices for implementation. This process allows each location to capitalize on "lessons learned" at other sites.

Results are reported monthly to senior leadership. In 2011, the team's activities focused on operating utility and flare systems efficiently, daily unit optimization and the development of an internal energy audit protocol to identify new opportunities.

Examples of Chevron Phillips Chemical's energy efficiency improvement activities include:

- Furnace burner retrofits and furnace efficiency monitoring improvements;
- Improving compressor and steam turbine efficiency;
- Addition of steam generation equipment that reuses previously wasted heat;
- Heat integration projects;
- Optimization of steam systems; and
- Implementation of process monitoring and optimization programs.

Chevron Phillips Chemical is committed to make energy management an integral part of the company's business strategy and strives for continuous improvement in energy efficiency. ●



## Greenhouse Gas Emissions Management

Chevron Phillips Chemical continually strives to make our operations more energy efficient. The benefits are two-fold: reduced greenhouse gas (GHG) emissions and lower production costs. GHG emissions are generated primarily from combustion of fossil fuels. Non-combustion emissions of carbon dioxide (CO<sub>2</sub>), methane, and nitrous oxide (N<sub>2</sub>O) at domestic and international facilities comprise significantly less than one percent of all global GHGs emissions in aggregate at Chevron Phillips Chemical.

In the past five years, new facilities have come online in the Middle East and production has been increasing at domestic sites. These activities account for the increase in tonnage of GHG emissions. However, during that same period, Chevron Phillips Chemical has worked to improve energy efficiency, and the global GHG intensity is stabilizing as international projects move into steady-state operation. The GHG intensity metric is the measurement of pounds of CO<sub>2</sub> equivalent emissions per pounds of product produced. ●

## Global Emissions

Over the past decade, Chevron Phillips Chemical has expanded its international operations to include olefin production and associated derivative facilities in Qatar and Saudi Arabia, in addition to sustaining the balance of its international and domestic production at typical historical levels. This growth also brings increases in the company's global emissions inventory. However, through its Energy Efficiency and Conservation Program and other efforts, Chevron Phillips Chemical has reduced the emissions intensity of its global operations, resulting in a reduction of overall emissions per unit of product.

The total emissions intensity has declined since 2008 with some recent stabilization as significant new projects have come online. International emissions increased in 2008 due to an unplanned major plant shutdown. A specific focus on emission reductions led to the lasting step change improvement in domestic emissions in 2009. Chevron Phillips Chemical anticipates continued progress in reducing the overall emissions intensity of its operations through deployment of the Energy Efficiency initiative and incorporation of emission reduction technologies as appropriate and necessary. ●

## Reportable Emission Events

Chevron Phillips Chemical strives to be a good neighbor and steward of our natural resources. In support of these goals, Chevron Phillips Chemical tracks and investigates global reportable emission events. A reportable emission event is one in which a release of material to the air, water or land exceeds a statutory or regulatory reportable quantity (RQ). Chevron Phillips Chemical also considers events resulting in a water release in excess of water discharge limits found in permits and/or regulations as reportable emission events. Further, events specifically defined in local regulations or permit conditions that require immediate reporting are also treated as reportable emission events, even if they do not meet one of the other reportable emission event criteria.

Globally, Chevron Phillips Chemical has achieved a 34 percent reduction of reportable emission events from 2001 to 2011. Domestic sites have experienced a 68 percent reduction from 2001 to 2011. Considering Chevron Phillips Chemical's growth since the company was founded in 2000, these reductions are significant.

Our guiding principles and Tenets of Operation have helped Chevron Phillips Chemical implement sustainable reductions in the number of reportable emission events over the company's first operating decade. Additionally, the company has expansion projects in the works that will be equipped with world-class technology designed to further reduce the number of reportable environmental events. ●





## Olefins Efficiency

Energy efficiency has also been a key element in improving unit operations. Since 2008 Chevron Phillips Chemical's olefins manufacturing has decreased energy consumption by 7 percent on a per-high-value-chemical basis (ethylene, propylene, butadiene, hydrogen, and benzene). Improving energy efficiency is important to improve cost position but also reduces the amount of GHG emissions by reducing the amount of energy required to support unit operations.

For example, ongoing energy efficiency projects at our Cedar Bayou Plant designed to reduce the temperature in the main cooling

tower by just one degree resulted in a savings of 94,000 MMBtu in 2011. An ongoing fuel-burner replacement project has reduced the amount of energy needed per pound of feed, resulting in a savings of 53,000 MMBtu in 2011. Approximately 40 percent of the furnaces are now complete with the remaining scheduled for completion in 2012. Once fully implemented, the anticipated savings from these projects should be approximately 420,000 MMBtu annually. These improvements, combined with daily optimization efforts, resulted in an annualized energy savings of 415,000 MMBtu, or \$1.6 million at last year's fuel gas pricing. That is equivalent to a 1.8

percent reduction in the combined Btu per pound of product and a carbon dioxide (CO<sub>2</sub>) emissions reduction of 24,070 tons.

Additionally, significant improvement in reliability has been achieved over the past year. Chevron Phillips Chemical's olefins units have achieved an operating rate 8.8 percent higher than the rest of industry in 2011 according to benchmark studies. Fewer reliability incidents means reduced flaring and unplanned outage emissions.

These efforts have not gone unrecognized as the facility was recently awarded the 2011 Responsible Care® Energy Efficiency Award, putting Cedar Bayou among the industry's elite. ●

## Global Water Consumption

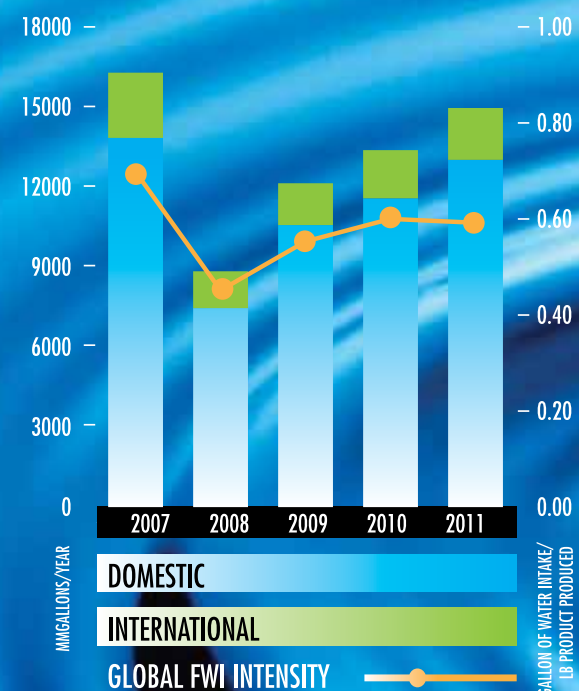
Chevron Phillips Chemical is committed to developing management practices that conserve and protect fresh water resources and enhance water efficiency at our facilities. Fresh water management and conservation is an important global issue that is critical to the sustainability of both our business and our communities. Water is a necessity at all Chevron Phillips Chemical manufacturing facilities to generate the steam and cooling water required for balanced, efficient manufacture of olefins, polyolefins and other related products. Many Chevron Phillips Chemical facilities partner with adjacent third-party manufacturing sites to manage and recycle water for multiple uses, thus reducing the overall water consumption from offsite sources.

The water consumption data presented are the sum of measured or estimated fresh water intake at all Chevron Phillips Chemical facilities worldwide. These data do not take into account water that is returned to the source nor sea water, which is used as cooling water at our international facilities in Qatar and Saudi Arabia to help preserve fresh water resources. Older data were based in large part on estimated use, whereas more recent years' information is based on improved site-specific measurement and accounting of fresh water use. Additionally, in 2008 domestic water use was significantly reduced due to Chevron Phillips Chemical's U.S. Gulf Coast facilities having to shut down operations for an extended period around Hurricane Ike's landfall and the area's subsequent slow startup and recovery.

Excepting 2008 as an anomaly and considering improved fresh water measurement in recent years, Chevron Phillips Chemical's fresh water intensity in terms of gallons of water used per pound of production has declined slightly and stabilized over the past five years, even as the company continues to expand its facilities worldwide. ●



## Fresh Water Intake<sup>8</sup>







# Operation Clean Sweep®

## Resource Conservation Spotlight – Operation Clean Sweep

Chevron Phillips Chemical's domestic pellet-producing facilities at Pasadena, Cedar Bayou and Orange participate in Operation Clean Sweep (OCS), a program sponsored by the American Chemistry Council and the Society of the Plastics Industry (SPI). Clean Sweep promotes voluntary best management practices to help control the accidental release of plastic pellets into the environment. As a responsible steward to the environment and recognizing the importance of preventing the loss of pellets, Chevron Phillips Chemical has made a voluntary OCS pledge, demonstrating our commitment to this pollution prevention program. We have also added OCS requirements into our procurement guidelines and added participation in the program as a part of our supplier scorecard. ●



## Recycling & Waste Reduction

Chevron Phillips Chemical facilities around the globe are finding innovative ways to recycle and limit their environmental footprint. Almost all facilities have some form of recycling program that includes office paper, newspaper, printer cartridges, aluminum cans, plastic containers and other recyclable materials. Larger recycling projects include:

*Q-Chem in Qatar* – Recycled 436 tons of metal scrap and 83.9 tons of used lube oil and wooden scrap materials in addition to paper, off-spec polyethylene, empty chemical containers and batteries.

*Performance Pipe* – Many of our Performance Pipe facilities have implemented recycling programs to regrind and reuse scrap plastic material, which is reintroduced into appropriate product streams. The regrind equipment includes an elutriation and bag filter system that essentially eliminates particulate releases from the process stream. Contaminated or unusable polyethylene materials are sold to qualified recycling vendors to reduce landfill disposal needs. Packaging strapping materials have been switched from steel to plastic, which significantly reduced waste. Excess scrap wood/pallets are being used for mulch. By way of example, in 2011, Performance Pipe's Startex, SC, plant alone recycled 635 gallons of used machine oil, 750 gallons of oil filters, oily rags and absorbents, 1000 pounds of cardboard, 29 tons of scrap metal, used batteries, fluorescent light bulbs and ink cartridges.

*Global Procurement Team, Headquarters* – Signed an agreement with a supplier to reclaim 80 – 85 percent of the metal from used furnace tubes, which will be recycled into the manufacture of new tubes for the Cedar Bayou, Port Arthur and Sweeny facilities. ●





# Product Responsibility

Chevron Phillips Chemical creates products and services that make life better for people around the world. As a matter of policy, we strive to manufacture, handle, transport and dispose of our chemical products in a safe, secure and environmentally responsible manner. In addition, we work with our customers, carriers, suppliers, distributors and contractors to encourage them to comply with our safety and environmental requirements and goals.

We comply with applicable federal, state and local requirements for product quality and labeling and share information on the health, safety and environmental impact of our products with customers and consumers. All commercial Chevron Phillips Chemical products follow the requirements for and are assessed by our Operational Excellence System's Product Stewardship guidelines. This evergreen process focuses on continuous recognition and reduction of potential health, environment or safety risks. In addition to the continuous process, annual reviews of associated hazard communication documents, transportation options, customer feedback, regulatory and technical data are completed by every product line.

We clearly communicate information on potential hazards to the people who use our products or who might be affected by them both internal and external to our operations. Information on Chevron Phillips Chemical's products is readily accessible via downloadable MSDS sheets and Product Stewardship Summaries on our corporate website.

Chevron Phillips Chemical strives to provide timely information that serves to improve public understanding about the safety of chemicals and to assure that our chemical products provide their intended benefits while protecting human health and the ecosystem. We actively participate in common sense advocacy efforts, chemical testing programs and children's health initiatives.

We respect our customers' right to privacy and have internal controls as well as third-party audits to reduce the risk of unintended customer data loss. We have customer service and satisfaction programs in place that ensure rapid response to concerns and complaints. ●

## Products that Reduce Environmental Impact

*K-Resin® SBC*, alone or in blends with crystal polystyrene, consumes less energy throughout its life cycle when compared to other non-styrenic clear resins (more parts are produced per pound and less product goes into the waste/recycle stream). In fact, *K-Resin® SBC* boasts a 20-30 percent yield advantage over non-styrenic clear resins.

*Soltrol® Isoparaffin Solvents* used for drilling applications are biodegradable, carry the Low Vapor Pressure/Volatile Organic Compounds (VOC) designation in the State of California and meet Food and Drug Administration regulations for use in animal feeds, defoamers, pesticides and insecticides for crops and livestock, paper for dry food contact and lubricants with incidental food contact.



*Eco-Solv® Dry Cleaning Fluid* is a 100 percent biodegradable, hydrocarbon based substitute for perchloroethylene (PERC) traditionally used for dry cleaning, which is not readily biodegradable.

*Xtel® PPS* is used as a coating for high-temperature wire and cable applications. This halogen-free resin does not require cross-linking thereby avoiding the use of heavy metals and radiation. Further, it can be reground and recycled.



*Marlex® Polyethylene and Ryton® PPS* are used in the manufacture of automobile parts including coolant, fuel, turbocharger, emissions control, and braking systems, making vehicles lighter and more fuel efficient.



*MarFlex® Polyethylene and K-Resin® SBC* are used in flexible packaging that reduces food waste by extending the shelf-life of pre-packed fresh produce, meats, cheeses and bakery items. Flexible packaging made with *MarFlex® Polyethylene* and *K-Resin® SBC* also provides more efficient transportation of products. As an example, the use of flexible packaging for pasta sauces reduced the number of unfilled package truckloads from 26 for unfilled glass jars to one for an equal number of unfilled plastic

pouches. Some viscosities of *Synfluid® Polyalphaolefins* are biodegradable products that allow bio-based lubricants to meet the demanding performance requirements necessary



for a variety of applications. *Performance Pipe's HDPE pipe* systems require significantly less energy to fabricate, transport and install than metal or concrete alternatives. Corrosion resistance and long service life along with the energy savings provide an exceptional balance of economic value and environmental performance. ●

## Products that Improve Safety

*Scentinel® Gas Odorants* are used as stenching agents for natural gas and propane to provide gas users an effective and inexpensive warning system for leaks in their gas delivery system.

*Marlex® High Density Polyethylene* is used in crash barriers during road construction. ●



## Products that Improve Health

*Ryton® PPS* products are inherently fire retardant without the use of additional additives. *Ryton* high temperature capable fibers provide excellent application support for particulate removal from coal fired power generation plants.

Chevron Phillips Chemical's Tesserlo facility is the only source in the world for *Ethylthioethanol (ETE)*, a key ingredient in an anti-diarrheal drug called Tinidazole.



*Marlex® Polyethylene* geomembrane pond and landfill liners are used to prevent leaching, water contamination and cracking.

*K-Resin® SBC* can be used in food packaging to retard deterioration and extend the shelf-life of pre-packed fresh produce. In some cases produce can stay fresher for up to 20 percent longer, or up to 16 days, using *K-Resin® SBC* packaging technology. Additionally, *K-Resin® SBC* is used in a variety of medical devices and surgical instruments.

*PA-18 Polyanhydride Resin (PA-18)* acts as a waterproofing agent in sunscreen and is gentle enough to be used in children's formulations. ●



## Spotlight on Children's Humanitarian Relief

Chevron Phillips Chemical's Borger facility supplies n-propyl mercaptan, an essential ingredient in the manufacture of albendazole, an anti-parasite medicine.

Intestinal worm infections, known as soil-transmitted helminthiasis (STH), cause tremendous health risks in children. Three major intestinal worms— the roundworm, whipworm and hookworm— are amongst the most widespread parasites worldwide. Together they inflict a heavy health burden in tropical and subtropical countries. Fortunately, there are tools that offer hope.

According to the World Health Organization (WHO), deworming can result in immediate improvements in child health, thus leading to increased growth rates, better school attendance and performance, improved iron status, and a decline in anemia. WHO recommends treatment of all children in endemic areas with anthelmintic drugs such as albendazole to reduce and control intestinal worm infection and illness. Borger is the only producer in the world for n-propyl mercaptan. GSK is donating up to 400 million albendazole treatments to WHO each year. Together, we hope our contributions will make a real difference in improving the lives of people facing these diseases. ●



Great chemistry begins and ends with great people. The quality products we produce, the technologies we create, the state-of-the-art facilities we build, the communities we support, the environmental and safety accolades we earn – none of these things would be possible without Chevron Phillips Chemical’s talented professionals worldwide.

Chevron Phillips Chemical’s employees are focused, diverse, enthusiastic and innovative. The company’s achievement-based environment encourages them to take personal ownership of their own and their team’s performance. We give our employees the freedom to innovate as necessary and support them with top-notch training to keep their skills sharp. We encourage them to get involved in the community at large as well as play a role in the global enterprise. We place a high priority on safety and environmental performance.

Chevron Phillips Chemical employs some of the most talented, dedicated, and forward-thinking people on the planet. Ask any Chevron Phillips Chemical employee what they like best about their job and universally, the answer is “the people I work with!”

## Diversity

At Chevron Phillips Chemical, we view diversity as more than just gender, country of origin, age, or race. Diversity is about the blending of experience levels, cultures, talents, competencies and decision-making styles. We embrace a culture that respects unique differences and recognizes the perspectives of all our employees.

We strive for a culture of inclusion where each person is valued for his or her distinctive skills, experiences and perspectives. We encourage global communication between our employees because the best solutions are developed when people from a variety of backgrounds come together to build upon each other’s knowledge.

Much like the blending of high-quality ingredients makes a superior chemical product, blending the unique skills and talents of a diverse workforce creates a superior chemical company.

Our Executive Diversity Council, Diversity Ambassadors and Local Diversity Councils all work together to help promote an inclusive work environment in which every employee has the opportunity to contribute to company goals. By valuing and welcoming diversity, we create an environment where ideas flourish. In turn, we also create a workforce that embraces entrepreneurial thinking, is committed to dynamic leadership, and feels supported in their jobs. This type of diverse, high-performing workforce provides Chevron Phillips Chemical with a sustainable competitive advantage.

Diversity in all its possibilities is valued at Chevron Phillips Chemical. It is fundamental to the quality of our products and services, ties directly to our bottom line, is essential to accomplishing our corporate goals and is crucial to our continued success. ●

## Learning & Development

Continual improvement is an integral part of working at Chevron Phillips Chemical and is strongly supported at all levels of the organization. The company provides a myriad of learning and development opportunities through face-to-face workshops, conferences and our online Learning Management System. Training opportunities are selected based on individual development and long-term business objectives.

Talent Stewardship Committees identify the skill sets needed to achieve future business objectives and develop plans to attract, retain and develop the talent necessary to meet those future needs. High-performing individuals are identified and groomed for future opportunities – ensuring the company has the right talent needed to maintain its leadership position in the petrochemical industry. ●

## Keeping Employees Healthy

Investing in the wellness of our employees means actively supporting healthy lifestyle choices and work/life balance as well as continually working to eliminate accidents and injuries. This commitment to wellness is instilled in employees from day one, and reinforced with corporate initiatives and awareness-raising programs that keep health, safety and wellness top-of-mind and allow employees to make better choices outside of work.

Chevron Phillips Chemical promotes wellness through targeted programs such as:

- Free & Clear® Quit for Life™ Smoking Cessation;
- Diabetes America;
- Weight Watchers;
- Aetna’s Simple Steps to a Healthier Life;
- Employee Assistance Programs;
- 24-Hour Nurse Lines;
- Fitness Center Discounts;
- On-site Flu Shots; and
- On-site Health Fairs and Health Testing. ●





# Social Performance

At Chevron Phillips Chemical, we are committed to making a long-lasting positive impact on the communities where we do business. We believe that real benefits can be gained by establishing effective relationships with our neighbors. That is why the company is dedicated to being a good neighbor and a force for positive change around the world. We donate funds, time and resources to worthy causes and we encourage our employees to do the same.

Our community support and involvement objectives include:

- Preserve and strengthen the economy and our economic system, and encourage private enterprise and individual initiative;
- Promote a healthy community environment – including viable civic, cultural, educational, health and human service institutions and undertakings;
- Enhance international understanding and cooperation;
- Assist colleges and universities that contribute to the success of the company;
- Encourage educational excellence and promote a favorable educational environment;

- Assist in recruiting well-qualified personnel and encourage increased student enrollment in science, engineering and other disciplines;
- Promote basic research related to the various interests of the company and the community; and promote educational opportunities for students in professional disciplines utilized by the chemical industry.

These guidelines cover community investments made to charitable organizations, colleges, universities, education-related organizations and public-service groups. ●

## Social Investment Spotlight

In conjunction with Chevron Phillips Chemical's Specialty Chemicals product line's customer, Novus International, Chevron Phillips Chemical supported Meds & Foods for Kids (MFK), a children's nutrition effort in Haiti.

With one in five children being underweight and an average of one of 14 children dying before the age of five, the effort is extremely important to the area. The organization recently reached the halfway point of its goal to raise three million dollars to

build a new factory in Haiti which will allow the organization to produce 10 times as much of its key nutrition product – Ready-to-Use Therapeutic Food (RUTF), known by locals as the peanut butter medicine.

MFK develops, produces and distributes highly nutritious foods, the peanut-based product, while training and educating Haitians on running the factory, growing quality crops and providing medical care. Since 2003, the organization has saved more than 15,000 Haitian children with its RUTF product and will be able to serve more than 80,000 children a year. ●



## Social Investments

Since the company's inception, Chevron Phillips Chemical has invested more than \$15 million and made countless in-kind contributions of equipment and volunteer hours in communities where we live and work. In all, we recognize that establishing sound partnerships with our neighbors – in our international, national, and local communities – provides for a lasting relationship built on trust and goodwill. Example social investment projects include:

- Establishment of an Eco Lab at Armand Bayou Nature Center to teach hands-on science education to children in the Pasadena Independent School District;
- Donation of money and hundreds of volunteers to teach the principles of free enterprise to school children through the Junior Achievement program;
- Good neighbor outreach efforts including neighborhood clean-ups, home repair projects for elderly citizens, school supply drives, toy drives, food drives and more;
- Volunteer programs at local schools in the classroom to promote literacy as part of "Read Across America" and to promote chemistry as part of National Chemistry Week;
- Fundraising for a variety of charitable organizations including the American Cancer Society, the American Red Cross, United Way, Jane Phillips Society and more;
- Donation of funds to schools for computer purchases; and
- Matching corporate donations for major disaster relief efforts, both domestic and international. ●





## Economic Performance

Chevron Phillips Chemical does not make its financial statements available to the general public. However, summarized financial performance information is provided below. Selected financial data for Chevron Phillips Chemical, in millions of dollars, is as follows:

SELECT FINANCIAL DATA	2011	2010	2009
Annual Sales Revenue	13,935	11,204	8,407
Net Income	1,970	1,388	615
Current Assets	2,890	2,695	2,351
Total Assets	8,634	8,016	7,418
Current Liabilities, excluding debt	1,354	1,615	1,223
Total Liabilities	2,806	3,162	2,734
Equity	5,828	4,854	4,684
Debt-to-Capital Ratio	15%	20%	21%

Selected financial data will be updated quarterly on the following dates, which are subject to change:

2012 PERIOD	TARGETED DATE
3 months	5/1/12
6 months	7/27/12
9 months	10/31/12
12 months	TBD

Chevron Phillips Chemical has received debt ratings from Standard & Poor's Ratings Services (Standard & Poor's) and Moody's Investors Service, Inc. (Moody's) as follows:

COMPANY	COMMERCIAL PAPER	LONG-TERM DEBT
Standard & Poor's	A-2	BBB
Moody's	P-2	Baa1

General information concerning Chevron Phillips Chemical is available through Dun & Bradstreet under DUNS number 03-891-2866. Further questions can be addressed to the Treasurer at (832) 813-4100 or by e-mail at: [FinancialStatements@cpchem.com](mailto:FinancialStatements@cpchem.com).

## About this Report

Chevron Phillips Chemical's Corporate Sustainability Report contains information on the company's performance in the following areas: environment, social, safety, product stewardship and economic performance. The goal is to demonstrate that since the formation of Chevron Phillips Chemical in July 2000, the company has had a focus of continuous improvement in all areas of its operations.

This report reflects Chevron Phillips Chemical's efforts during the calendar year of 2011. Any information included referencing prior years is provided for context only. This report includes information on wholly owned operations as well as joint venture operations where Chevron Phillips Chemical employees participate in the direct operations or management of the plants or product lines.

The company's stakeholders include employees, customers, suppliers, owners, contractors, business partners, governmental and non-governmental organizations, unions, industry colleagues and the communities where we operate. Each stakeholder shapes our business environment and contributes to our success. We strive to be transparent and engage with our stakeholders on their issues of concern in a manner that is positive and constructive.

We also respond throughout the year to direct requests from environment, social and governance research agencies, individual shareholders, non-governmental organizations, academic institutions and individual students regarding the company's environment, health and safety and social responsibility policies, programs and performance.

This report and additional information can be found at [www.cpchem.com](http://www.cpchem.com). Questions or comments are welcomed.

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## Stakeholder Engagement Outreach

### Employees

Town Halls, Surveys, Intranet, Best Practice Committees, Video, Newsletters, Employee Reviews



### Communities

Citizen Advisory Panels, Town Halls, Community Consultations, Direct Mail, Media, Online, Local Emergency Planning Committees, Rotary Clubs, Chambers of Commerce, Various Boards and Committees



### NGOs

Various Boards and Committees of Industry Organizations Partnerships, Voluntary Initiatives, Funding



### Governments

Consultation, Negotiation, Regulatory Advocacy, Legislative, Voluntary Initiatives, Grassroot Efforts, Town Halls, Site Visits



### Industry Trade Sector

Trade and Professional Associations, Benchmarking, Working Groups, Conferences, Various Boards and Committees of Industry Organizations



### Suppliers/Customers

Business to Business Relationships, Face-to-Face Communication, Customer Satisfaction Surveys and Benchmarking





# Index to Reporting Guideline Indicators

This table provides the location to find information reported that completely or partially relates to the indicators from sustainability reporting published by the Global Reporting Initiative (GRI).

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Primary Brands	2.2	7
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# Health, Safety, Energy and Environment Data Assumptions

Our Operational Excellence System incorporates a “Plan-Do-Check-Act” Model to achieve continuous improvement. It requires that each facility and product line be formally audited by our corporate environment, health, safety and security department and fulfills the requirements of American Chemistry Council Responsible Care® Management System. The Operational Excellence System reduces operating risks and promotes regulatory compliance. Our operational Excellence program provides the framework that supports the development and quality of data found in this report.

## NOTES TO PAGES 12, 14, 16-17, AND 19

### <sup>1</sup>Safety Performance Graphs

The four graphs depict Chevron Phillips Chemical’s continual improvement in safety. We follow US Occupational Health and Safety Administration (OSHA) guidelines for injury classification and reporting at all our operations around the globe. In this system, a recordable injury is defined as an injury requiring treatment beyond first aid and the yearly rate is measured as the number per 200,000 hours worked (approximately 100 people). Chevron Phillips Chemical has experienced a 33 percent reduction in Employee Total Recordable Incident Rate (TRIR) in the last three years compared with 2006 – 2008 period. With the deployment of the Noise & Hearing Conservation and Contractor Safety Management Procedures, the number of hearing and contractor injury/illness cases have decreased. The Major Capital Project Contractor TRIR has decreased over three years. The Project hours have significantly decreased in 2011 due to the completion of the Q-Chem II Project and Saudi Polymers Company Project.

### <sup>2</sup>ACC Graph

The safety performances of the Chevron Phillips Chemical Combined Employee and Contractor workforce and American Chemistry Council (ACC) Peer Member Companies are compared in the graph. Chevron Phillips Chemical has been ranked in the top quartile amongst ACC Peer Member Companies since tracking began in 2008. In 2010, Chevron Phillips

Chemical ranked in the top 10 percent of ACC Peer Member Companies. The ACC Peer Member Companies represents companies that have worked a minimum of two million employee and contractors hours collectively, in a given year in the United States. Ten facilities within Chevron Phillips Chemical report metrics data to ACC annually, including the following: Bartlesville, Borger, Cedar Bayou, Conroe, Kingwood, Orange, Port Arthur, Pasadena, Sweeny, and The Woodlands Headquarters.

### <sup>3</sup>Process Safety

This graph shows the reduction in the Process Safety Event Rate between 2006-2008 and 2009-2011. It represents the three-year average of the number of Tier 1 Process Safety Events (PSEs) divided by work-hours of employees and contractors at all (domestic and international) Process Safety Management (PSM)-covered facilities. Tier 1 Process Safety Events (PSEs) represent the highest level of PSEs captured, and is defined as “a loss of primary containment with the greatest consequence” by an industry-recognized standard.

### <sup>4</sup>Energy Intensity Index Graph

This graph reflects improvements in energy efficiency at our manufacturing sites in the United States. Chevron Phillips Chemical tracks both energy consumed from fuels as a by-product and the energy purchased and consumed (purchased fuel, electricity and steam). The compilation of our energy consumption data is consistent with the methods used by American Chemistry Council for the ACC Energy Efficiency and Greenhouse Gas Annual Survey. Because Chevron Phillips Chemical is a diversified chemical company operating a variety of process plants, monitoring the company’s energy reduction progress uses an Energy Intensity Index that establishes a baseline expected energy consumption per pound of product for each unit. The Energy Intensity Index is a ratio of the actual energy consumed over an expected baseline energy number.

### <sup>5</sup>Greenhouse Gas

This graph includes the net total emissions of greenhouse gases expressed as tons of CO<sub>2</sub> equivalent summed separately

for the domestic and international plants. The intensity metric included on the graph represents the ratio of the total greenhouse gases expressed as million pounds of CO<sub>2</sub> equivalent divided by the total annual production of product in million pounds at each of the facilities. For plants that Chevron Phillips Chemical has only partial equity ownership, the reported emissions and production data represent the equity stake.

### <sup>6</sup>Global Emissions

This graph includes the total emissions of criteria pollutants (NO<sub>x</sub>, CO, VOC, PM10, SO<sub>2</sub>) from each of the plants grouped by location. The intensity metric included on the graph represents the ratio of the total emissions of criteria pollutants divided by the total annual production of product in million pounds at each of the facilities. For plants that Chevron Phillips Chemical has only partial equity ownership, the reported emissions and production data represent the equity stake.

### <sup>7</sup>Reportable Emission Events

This graph provides historical data on the number of total reportable emission events by year. All reportable emission events are reported based on specific country, state or local regulations. A reportable emission event includes air, water or land releases above the Reportable Quantity (RQ), exceedance of a water discharge limit (permit and regulatory), and emission events as defined in local regulations or permit conditions that require immediate agency reporting. All normal process reportable emission events are included in addition to those resulting from activities such as start-up from new construction and events beyond facility control (weather, power and feed interruptions, etc).

### <sup>8</sup>Water Metric

This graph includes the total water intake in million gallons for each of the plants grouped by location (i.e., domestic or international). The water intake data include fresh water brought in for process uses, including steam, and for potable water. The data do not include water that is brought in but immediately transferred to another facility located onsite and not owned or operated by Chevron Phillips Chemical. The data also do not include sea water. ●





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