

WESTLAKE CHEMICAL CORP

Form 10-K

February 24, 2011

[Table of Contents](#)

[Index to Financial Statements](#)

**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**Form 10-K**

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the Fiscal Year Ended December 31, 2010

or

.. TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the Transition Period from            to

Commission File No. 001-32260

**Westlake Chemical Corporation**

(Exact name of registrant as specified in its charter)

Edgar Filing: WESTLAKE CHEMICAL CORP - Form 10-K

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**76-0346924**  
(I.R.S. Employer  
Identification No.)

**2801 Post Oak Boulevard, Suite 600**  
**Houston, Texas 77056**

(Address of principal executive offices, including zip code)

**(713) 960-9111**

(Registrant's telephone number, including area code)

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

<b>Title of each class</b>	<b>Name of each exchange on which registered</b>
<b>Common Stock, \$0.01 par value</b>	<b>New York Stock Exchange, Inc.</b>

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

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

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

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

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

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

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

Edgar Filing: WESTLAKE CHEMICAL CORP - Form 10-K

Large accelerated filer

Accelerated filer

Non-accelerated filer   
(Do not check if a smaller

Smaller reporting company

reporting company)

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

The aggregate market value of the registrant's voting stock held by non-affiliates of the registrant on June 30, 2010, the end of the registrant's most recently completed second fiscal quarter, based on a closing price on June 30, 2010 of \$18.57 on the New York Stock Exchange was approximately \$358 million.

There were 66,261,165 shares of the registrant's common stock outstanding as of February 17, 2011.

**DOCUMENTS INCORPORATED BY REFERENCE:**

Certain information required by Part II and Part III of this Form 10-K is incorporated by reference from the registrant's definitive Proxy Statement to be filed pursuant to Regulation 14A with respect to the registrant's 2011 Annual Meeting of Stockholders to be held on May 20, 2011.

**Table of Contents**

**Index to Financial Statements**

**TABLE OF CONTENTS**

	<b>Page</b>
<b>PART I</b>	
<b>Item</b>	
1) <u>Business</u>	1
1A) <u>Risk Factors</u>	9
1B) <u>Unresolved Staff Comments</u>	19
2) <u>Properties</u>	19
3) <u>Legal Proceedings</u>	20
<u>Executive Officers of the Registrant</u>	21
<b>PART II</b>	
5) <u>Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	23
6) <u>Selected Financial and Operational Data</u>	25
7) <u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	28
7A) <u>Quantitative and Qualitative Disclosures about Market Risk</u>	45
8) <u>Financial Statements and Supplementary Data</u>	46
9) <u>Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	91
9A) <u>Controls and Procedures</u>	91
9B) <u>Other Information</u>	91
<b>PART III</b>	
10) <u>Directors, Executive Officers and Corporate Governance</u>	92
11) <u>Executive Compensation</u>	92
12) <u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	92
13) <u>Certain Relationships and Related Transactions, and Director Independence</u>	92
14) <u>Principal Accountant Fees and Services</u>	92
<b>PART IV</b>	
15) <u>Exhibits and Financial Statement Schedules</u>	93

**Table of Contents**

**Index to Financial Statements**

**INDUSTRY AND MARKET DATA**

Industry and market data used throughout this Form 10-K were obtained through internal company research, surveys and studies conducted by unrelated third parties and industry and general publications, including information from Chemical Market Associates, Inc., or CMAI, and Chemical Data, Inc. We have not independently verified market and industry data from external sources. While we believe internal company estimates are reliable and market definitions are appropriate, neither such estimates nor these definitions have been verified by any independent sources.

**PRODUCTION CAPACITY**

Unless we state otherwise, annual production capacity estimates used throughout this Form 10-K represent rated capacity of the facilities at December 31, 2010. We calculated rated capacity by estimating the number of days in a typical year that a production unit of a plant is expected to operate, after allowing for downtime for regular maintenance, and multiplying that number by an amount equal to the unit's optimal daily output based on the design feedstock mix. Because the rated capacity of a production unit is an estimated amount, actual production volumes may be more or less than the rated capacity.

**NON-GAAP FINANCIAL MEASURES**

The body of accounting principles generally accepted in the United States is commonly referred to as GAAP. For this purpose, a non-GAAP financial measure is generally defined by the Securities and Exchange Commission (SEC) as one that purports to measure historical or future financial performance, financial position or cash flows, but excludes or includes amounts that would not be so adjusted in the most comparable GAAP measures. In this report, we disclose so-called non-GAAP financial measures, primarily EBITDA. EBITDA is calculated as net income before interest expense, income taxes, depreciation and amortization. The non-GAAP financial measures described in this Form 10-K are not substitutes for the GAAP measures of earnings and cash flow.

EBITDA is included in this Form 10-K because our management considers it an important supplemental measure of our performance and believes that it is frequently used by securities analysts, investors and other interested parties in the evaluation of companies in our industry, some of which present EBITDA when reporting their results. We regularly evaluate our performance as compared to other companies in our industry that have different financing and capital structures and/or tax rates by using EBITDA. In addition, we utilize EBITDA in evaluating acquisition targets. Management also believes that EBITDA is a useful tool for measuring our ability to meet our future debt service, capital expenditures and working capital requirements, and EBITDA is commonly used by us and our investors to measure our ability to service indebtedness. EBITDA is not a substitute for the GAAP measures of earnings or of cash flow and is not necessarily a measure of our ability to fund our cash needs. In addition, it should be noted that companies calculate EBITDA differently and, therefore, EBITDA as presented for us may not be comparable to EBITDA reported by other companies. EBITDA has material limitations as a performance measure because it excludes interest expense, depreciation and amortization, and income taxes.

**Table of Contents****Index to Financial Statements****PART I****Item 1. Business  
General**

We are a vertically integrated manufacturer and marketer of basic chemicals, vinyls, polymers and fabricated PVC building products. Our products include some of the most widely used chemicals in the world, which are fundamental to many diverse consumer and industrial markets, including flexible and rigid packaging, automotive products, coatings, residential and commercial construction as well as other durable and non-durable goods. We operate in two principal business segments, Olefins and Vinyls, and we are one of the few North American integrated producers of vinyls with substantial downstream integration into polyvinyl chloride, or PVC, building products.

We began operations in 1986 after our first polyethylene plant, an Olefins segment business, near Lake Charles, Louisiana was acquired from Occidental Petroleum Corporation. We began our vinyls operations in 1990 with the acquisition of a vinyl chloride monomer, or VCM, plant in Calvert City, Kentucky from the Goodrich Corporation. In 1992, we commenced our Vinyls segment PVC building products operations after acquiring three PVC pipe plants. Since 1986, we have grown rapidly into an integrated producer of petrochemicals, polymers and PVC building products. We achieved this by acquiring 19 plants (excluding plants that have subsequently been permanently closed or disposed of), constructing eight new plants (including our joint venture in China) and completing numerous capacity or production line expansions. Since 2007, we have closed three PVC building products plants due to the economic downturn.

We benefit from highly integrated production facilities that allow us to process raw materials into higher value-added chemicals and PVC building products. As of February 17, 2011, we have 11.8 billion pounds per year of aggregate production capacity at 14 manufacturing sites in North America. We also have a 59% interest in a joint venture in China that operates a vinyls facility.

**Olefins Business*****Products***

Olefins are the basic building blocks used to create a wide variety of petrochemical products. We manufacture ethylene, polyethylene, styrene, and associated co-products at our manufacturing facility in Lake Charles and polyethylene at our Longview, Texas facility. We have two ethylene plants, two polyethylene plants and one styrene monomer plant at our Lake Charles complex. We have three polyethylene plants and a specialty polyethylene wax plant at our Longview facility. The following table illustrates our production capacities at February 17, 2011 by principal product and the primary end uses of these materials:

<b>Product</b>	<b>Annual Capacity (Millions of pounds)</b>	<b>End Uses</b>
Ethylene	2,500	Polyethylene, ethylene dichloride, or EDC, styrene, ethylene oxide/ethylene glycol
Low-Density Polyethylene, or LDPE	1,500	High clarity packaging, shrink films, laundry and dry cleaning bags, ice bags, frozen foods packaging, bakery bags, coated paper board, cup stock, paper folding cartons, lids, closures and general purpose molding
Linear Low-Density Polyethylene, or LLDPE, and High-Density Polyethylene, or HDPE	980	Heavy-duty films and bags, general purpose liners (LLDPE); housewares, pails, totes and crates (HDPE)
Styrene	570	Disposables, packaging material, appliances, paints and coatings, resins and building materials



## **Table of Contents**

### **Index to Financial Statements**

*Ethylene.* Ethylene is the world's most widely used petrochemical in terms of volume. It is the key building block used to produce a large number of higher value-added chemicals including polyethylene, EDC, VCM and styrene. We have the capacity to produce 2.5 billion pounds of ethylene per year at our Lake Charles complex and the capability to consume all of our production internally to produce polyethylene and styrene monomer in our Olefins business and to produce VCM and EDC in our Vinyls business. We also produce ethylene in our Vinyls segment at our Calvert City facility, all of which is used internally in the production of VCM. In addition, we produce ethylene co-products including chemical grade propylene, crude butadiene, pyrolysis gasoline and hydrogen. We sell our entire output of these co-products to external customers.

*Polyethylene.* Polyethylene, the world's most widely consumed polymer, is used in the manufacture of a wide variety of packaging, film, coatings and molded product applications. Polyethylene is generally classified as either LDPE, LLDPE or HDPE. The density correlates to the relative stiffness of the products. The difference between LDPE and LLDPE is molecular, and products produced from LLDPE are stronger than products produced from LDPE. LDPE is used in end products such as bread bags, dry cleaning bags, food wraps and milk carton and snack package coatings. LLDPE is used for higher film strength applications such as stretch film and heavy duty sacks. HDPE is used to manufacture products such as grocery, merchandise and trash bags, plastic containers and plastic caps and closures.

We are the largest producer of LDPE in North America based on capacity and, in 2010, our annual capacity of 1.5 billion pounds was available in numerous formulations to meet the needs of our diverse customer base. We also have the capacity to produce 980 million pounds (combined) of LLDPE and HDPE per year in various different formulations. We produce LDPE and LLDPE at Lake Charles and Longview. We sell polyethylene to external customers as a final product in pellet form.

*Styrene.* Styrene is used to produce derivatives such as polystyrene, acrylonitrile butadiene styrene, unsaturated polyester and synthetic rubber. These derivatives are used in a number of applications including injection molding, disposables, food packaging, housewares, paints and coatings, resins, building materials, tires and toys. We produce styrene at our Lake Charles plant, where we have the capacity to produce 570 million pounds of styrene per year, all of which is sold to external customers.

### ***Feedstocks***

We are highly integrated along our olefins product chain. We produce most of the ethylene required to produce our polyethylene, VCM and styrene. Ethylene can be produced from either petroleum liquid feedstocks, such as naphtha, condensates and gas oils, or from natural gas liquid feedstocks, such as ethane, propane and butane. One of our ethylene plants uses ethane as its feedstock and the other can use ethane, ethane/propane mix, propane, butane and naphtha. We receive feedstock at our Lake Charles facility through several pipelines from a variety of suppliers in Texas and Louisiana.

In addition to our internally supplied ethylene, we also acquire ethylene from third parties in order to supply a portion of our ethylene requirements. We acquire butene and hexene to manufacture polyethylene and benzene to manufacture styrene. We receive butene and hexene at the Lake Charles complex and hexene at the Longview complex via rail car from several suppliers. We receive benzene via barges, ships and pipeline pursuant to short-term arrangements. We purchase butene and hexene pursuant to multi-year contracts, some of which are renewable for an additional term subject to either party to the contract notifying the other party that it does not wish to renew the contract.

### ***Marketing, Sales and Distribution***

We use the majority of our Lake Charles ethylene production in our polyethylene, styrene and VCM operations. We sell the remainder to external customers. In addition, we sell our ethylene co-products to external customers. Our primary ethylene co-products are chemical grade propylene, crude butadiene, pyrolysis gasoline and hydrogen. The majority of sales in our Olefins business are made under long-term agreements. Contract



**Table of Contents****Index to Financial Statements**

volumes are established within a range. The terms of these contracts are fixed for a period, although earlier termination may occur if the parties fail to agree on price. In most cases, these contracts also contemplate extension of the term unless terminated by one of the parties.

We typically ship our ethylene and propylene via a pipeline system that connects our plants to numerous customers. Our hydrogen is sold via pipeline to a single customer. We also have storage agreements and exchange agreements that allow us access to customers who are not directly connected to the pipeline system. We transport our polyethylene, styrene, crude butadiene and pyrolysis gasoline by rail or truck. Additionally, our pyrolysis gasoline and styrene can be transported by barge.

We have an internal sales force that sells directly to our customers. Our polyethylene customers are some of the nation's largest producers of film and flexible packaging. In 2010, no single customer accounted for 10% or more of segment net sales.

***Competition***

The markets in which our Olefins business operates are highly competitive. We compete on the basis of price, customer service, product deliverability, quality, consistency and performance. Our competitors in the ethylene, polyethylene and styrene markets are typically some of the world's largest chemical companies, including INEOS (successor to BP Chemicals Ltd.), The Dow Chemical Company, ExxonMobil Chemical Company, LyondellBasell Industries, Chevron Phillips Chemical Company LP and NOVA Chemicals Corporation, a subsidiary of The International Petroleum Investment Company of the Emirate of Abu Dhabi.

**Vinyls Business*****Products***

Principal products in our integrated Vinyls segment include PVC, VCM, EDC, chlorine, caustic soda and ethylene. We also manufacture and sell building products fabricated from the PVC we produce, including pipe, fence and deck, and window and door components. We manage our integrated Vinyls production chain, from the basic chemicals to finished PVC building products, to maximize product margins, pricing and capacity utilization. Our primary manufacturing facilities are located in our Calvert City and Geismar, Louisiana, complexes. Our Calvert City facility includes an ethylene plant, a chlor-alkali plant, a VCM plant, a PVC plant and a large diameter PVC pipe plant. Our Geismar facility includes an EDC plant, a VCM plant and a PVC plant. As of February 17, 2011, we also operate and own 11 PVC building product facilities and owned a 59% interest in a joint venture in China that produces PVC resin, PVC building products and PVC film and sheet. The following table illustrates our production capacities at February 17, 2011 by principal product and the end uses of these products:

<b>Product <sup>(1)</sup></b>	<b>Annual Capacity <sup>(2)</sup> (Millions of pounds)</b>	<b>End Uses</b>
PVC	1,700	Construction materials including pipe, siding, profiles for windows and doors, film and sheet for packaging and other consumer applications
VCM	1,850	PVC
Chlorine	550	VCM, organic/inorganic chemicals, bleach
Caustic Soda	605	Pulp and paper, organic/inorganic chemicals, neutralization, alumina
Ethylene	450	VCM
PVC Building Products	1,140	Pipe: water and sewer, plumbing, irrigation, conduit; window and door components; fence and deck components

(1) EDC, a VCM intermediate product, is not included in the table.



---

**Table of Contents**

**Index to Financial Statements**

(2) Annual capacity excludes total capacity of 145 million pounds of PVC film and sheet, 300 million pounds of PVC resin and 33 million pounds of PVC building products from the joint venture in China (in which we have a 59% interest).

*PVC.* PVC, the world's third most widely used plastic, is an attractive alternative to traditional materials such as glass, metal, wood, concrete and other plastic materials because of its versatility, durability and cost-competitiveness. PVC is produced from VCM, which is, in turn, made from chlorine and ethylene. PVC compounds are made by combining PVC resin with various additives in order to make either rigid and impact-resistant or soft and flexible compounds. The various compounds are then fabricated into end-products through extrusion, calendaring, injection-molding or blow-molding. Flexible PVC compounds are used for wire and cable insulation, automotive interior and exterior trims and packaging. Rigid extrusion PVC compounds are commonly used in window frames, vertical blinds and construction products, including pipe and siding. Injection-molding PVC compounds are used in specialty products such as computer housings and keyboards, appliance parts and bottles. We have the capacity to produce 1.1 billion pounds of PVC per year at our Calvert City facility and 600 million pounds per year at our Geismar facility. We have the capacity to use a majority of our PVC internally in the production of our PVC building products. The remainder of our PVC is sold to downstream fabricators and the export market.

*VCM.* VCM is used to produce PVC, solvents and PVC-related products. We use ethylene and chlorine to produce VCM. We have the capacity to produce 1.3 billion pounds of VCM per year at our Calvert City facility and 550 million pounds per year at our Geismar facility. The majority of our VCM is used internally in our PVC operations.

*Chlorine and Caustic Soda.* We combine salt and electricity to produce chlorine and caustic soda, co-products commonly referred to as chlor-alkali, at our Calvert City facility. We use our chlorine production in our VCM plants. We currently have the capacity to supply approximately 50% of our chlorine requirements internally. We purchase the remaining amount at market prices. Our caustic soda is sold to external customers who use it for, among other things, the production of pulp and paper, organic and inorganic chemicals and alumina. In August 2010, we announced that we intend to proceed with the previously announced construction of a new chlor-alkali plant to be located at our vinyls manufacturing complex in Geismar. The new chlor-alkali unit is expected to produce 250,000 ECUs annually upon completion, bringing our total ECU capacity to 525,000 per year. The new plant will improve the vertical integration of our vinyls business from chlorine downstream into VCM and PVC and increase caustic soda sales. The project is currently targeted for start-up in the second half of 2013.

*Ethylene.* We use all of the ethylene produced at Calvert City internally to produce VCM, and Calvert City has the capacity to produce approximately 50% of the ethylene required for our total VCM production. We obtain the remainder of the ethylene we need for our Vinyls business from our Olefins business.

*PVC Building Products.* Products made from PVC are used in construction materials ranging from water and sewer systems to home and commercial applications for fence, deck, window and door systems. We manufacture and market water, sewer, irrigation and conduit pipe products under the North American Pipe brand. We also manufacture and market PVC fence, decking, windows and door profiles under the Westech Building Products brand. All of our PVC building products are sold to external customers. All of the PVC we require for our PVC building products is produced internally. The combined capacity of our 11 PVC building products plants is 1,140 million pounds per year.

*China Joint Venture.* We own a 59% interest in Suzhou Huasu Plastics Co. Ltd., a joint venture based near Shanghai, China. Our joint venture partners are a local Chinese chemical company and a subsidiary of INEOS. In 1995, this joint venture constructed and began operating a PVC film plant that has a current annual capacity of 145 million pounds of PVC film. In 1999, the joint venture constructed and began operating a PVC resin plant that has an annual capacity of 300 million pounds of PVC resin. In 2008, the joint venture began producing PVC building products with an annual capacity of 33 million pounds of product.

## **Table of Contents**

### **Index to Financial Statements**

#### ***Feedstocks***

We are highly integrated along our vinyls production chain. We produce most of the ethylene and all of the VCM and PVC used in our Vinyls business, and approximately 50% of our chlorine requirements. The remainder of our chlorine requirements is purchased at market prices. Ethylene produced at our Calvert City facility utilizes propane feedstock. We generally purchase the salt required for our chlor-alkali plant under a long-term contract. We purchase electricity for our Calvert City facility production from the Tennessee Valley Authority under a long-term contract.

We are one of the few North American integrated producers of vinyls with substantial downstream integration into PVC building products. Our Calvert City and Geismar facilities supply all the PVC required for our PVC building products plants. The remaining feedstocks for PVC building products include pigments, fillers and stabilizers, which we purchase under short-term contracts based on prevailing market prices.

#### ***Marketing, Sales and Distribution***

We are the second largest manufacturer of PVC pipe by volume in North America. We sell a majority of our PVC pipe through a combination of manufacturer's representatives and our internal sales force to distributors who serve the wholesale PVC pipe market. We use a regional sales approach that allows us to provide focused customer service and to meet the specified needs of individual customers. We use an internal salaried sales force to market and sell our fence, window and door profiles. We have the capacity to use a majority of our PVC internally in the production of our PVC building products. The remainder of our PVC is sold to downstream fabricators and the export market.

We sell substantially all of our caustic soda production to external customers, concentrating on customers in Calvert City's geographical area to minimize transportation costs. In 2010, one customer in our Vinyls segment accounted for 10.6% of segment net sales.

#### ***Competition***

Competition in the vinyls market is based on price, product availability, product performance and customer service. We compete in the vinyls market with other producers including Oxy Chem, LP, Shintech, Inc., Georgia Gulf Corporation and Formosa Plastics Corporation.

Competition in the PVC building products market is based on price, on-time delivery, product quality, customer service and product consistency. We compete in the PVC building products market with other producers and fabricators including JM Eagle and Diamond Plastics Corporation. We are the second largest manufacturer of PVC pipe by volume in North America. We are also one of the largest manufacturers of PVC fence components by volume in the United States.

#### ***Environmental and Other Regulation***

As is common in our industry, obtaining, producing and distributing many of our products involves the use, storage, transportation and disposal of large quantities of toxic and hazardous materials, and our manufacturing operations require the generation and disposal of large quantities of hazardous wastes. We are subject to extensive, evolving and increasingly stringent federal and local environmental laws and regulations, which address, among other things, the following:

emissions to the air;

discharges to land or to surface and subsurface waters;

other releases into the environment;

remediation of contaminated sites;

generation, handling, storage, transportation, treatment and disposal of waste materials; and

maintenance of safe conditions in the workplace.

---

**Table of Contents**

**Index to Financial Statements**

We are subject to environmental laws and regulations that can impose civil and criminal sanctions and that may require us to mitigate the effects of contamination caused by the release or disposal of hazardous substances into the environment. Under one law, an owner or operator of property may be held strictly liable for remediating contamination without regard to whether that person caused the contamination, and without regard to whether the practices that resulted in the contamination were legal at the time they occurred. Because several of our production sites have a history of industrial use, it is impossible to predict precisely what effect these requirements will have on us.

*Contract Disputes with Goodrich and PolyOne.* In connection with the 1990 and 1997 acquisitions of the Goodrich Corporation ( Goodrich ) chemical manufacturing complex in Calvert City, Goodrich agreed to indemnify us for any liabilities related to preexisting contamination at the complex. For our part, we agreed to indemnify Goodrich for post-closing contamination caused by our operations. The soil and groundwater at the complex, which does not include our nearby PVC facility, had been extensively contaminated by Goodrich s operations. In 1993, Goodrich spun off the predecessor of PolyOne Corporation ( PolyOne ), and that predecessor assumed Goodrich s indemnification obligations relating to preexisting contamination.

In 2003, litigation arose among us, Goodrich and PolyOne with respect to the allocation of the cost of remediating contamination at the site. The parties settled this litigation in December 2007 and the case was dismissed. In the settlement the parties agreed that, among other things: (1) PolyOne would pay 100% of the costs (with specified exceptions), net of recoveries or credits from third parties, incurred with respect to environmental issues at the Calvert City site from August 1, 2007 forward; (2) either we or PolyOne might, from time to time in the future (but not more than once every five years), institute an arbitration proceeding to adjust that percentage; and (3) we and PolyOne would negotiate a new environmental remediation utilities and services agreement to cover our provision to or on behalf of PolyOne of certain environmental remediation services at the site. The current environmental remediation activities at the Calvert City complex do not have a specified termination date but are expected to last for the foreseeable future. The costs incurred by PolyOne to provide the environmental remediation services were \$3.0 million and \$2.7 million in 2010 and 2009, respectively. On March 17, 2010, we received notice of PolyOne s intention to commence an arbitration proceeding under the settlement agreement. In this proceeding, PolyOne seeks to readjust the percentage allocation of costs and to recover approximately \$1.4 million from us in reimbursement of previously paid remediation costs. At this time, since the proceeding is in an early stage, we are not able to estimate the loss, if any, that the arbitration proceeding could have on our financial statements in 2011 and later years.

*Administrative Proceedings.* There are several administrative proceedings in Kentucky involving us, Goodrich and PolyOne related to the same manufacturing complex in Calvert City. In 2003, the Kentucky Environmental and Public Protection Cabinet (the Cabinet ) re-issued Goodrich s Resource Conservation and Recovery Act ( RCRA ) permit which requires Goodrich to remediate contamination at the Calvert City manufacturing complex. Both Goodrich and PolyOne challenged various terms of the permit in an attempt to shift Goodrich s clean-up obligations under the permit to us. We intervened in the proceedings. The Cabinet has suspended all corrective action under the RCRA permit in deference to a remedial investigation and feasibility study ( RIFS ) being conducted pursuant to an Administrative Settlement Agreement ( AOC ), which became effective on December 9, 2009. See Change in Regulatory Regime below. The proceedings have been postponed. Periodic status conferences will be held to evaluate whether additional proceedings will be required.

In January 2004, the Cabinet notified us that our ownership of a closed landfill (known as former Pond 4) required us to submit an application for our own permit under RCRA. This could have required us to bear the cost of performing remediation work at former Pond 4 and adjacent areas at the complex. We challenged the Cabinet s January 2004 order and obtained several extensions to submit the required permit application. In October 2006, the Cabinet notified Goodrich and us that both were operators of former Pond 4 under RCRA, and ordered us to jointly submit an application for a RCRA permit. Goodrich and we both challenged the Cabinet s October 2006 order. On December 18, 2009, the Cabinet notified us that it had withdrawn the requirement for us to submit a permit application with regard to former Pond 4. On August 12, 2010, an agreed order, signed by all parties, dismissed our challenge to the Cabinet s January 2004 former Pond 4 order.

---

**Table of Contents**

**Index to Financial Statements**

*Change in Regulatory Regime.* On May 22, 2009, the Cabinet sent a letter to the U.S. Environmental Protection Agency ( EPA ) requesting the EPA 's assistance in addressing contamination at the Calvert City site under the U.S. Comprehensive Environmental Response, Compensation, and Liability Act ( CERCLA ). In its response to the Cabinet on May 29, 2009, the EPA stated that it concurred with the Cabinet 's request and would incorporate work previously conducted under the Cabinet 's RCRA authority into the EPA 's cleanup efforts under CERCLA. Since 1983, the EPA has been addressing contamination at an abandoned landfill adjacent to our plant which had been operated by Goodrich and which was being remediated pursuant to CERCLA. During the past two years, the EPA has directed Goodrich and PolyOne to conduct additional investigation activities at the landfill and at our plant. On June 26, 2009, the EPA notified us that we may have potential liability under section 107(a) of CERCLA at our plant site. Liability under section 107(a) of CERCLA is strict and joint and several. The EPA specified a period of 60 days during which we could negotiate the performance and funding of response activities at the site. The EPA 's letter of June 26, 2009 also identified Goodrich and PolyOne, among others, as potentially responsible parties at the plant site. We negotiated, in conjunction with the other potentially responsible parties, the AOC and an order to conduct the RIFS. The parties submitted and received EPA approval for a RIFS work plan to implement the AOC. The parties have begun to conduct the RIFS.

*Litigation Related to the Administrative Proceedings.* We have the contractual right to reconvey title to former Pond 4 back to Goodrich, and we have tendered former Pond 4 back to Goodrich under this provision. In March 2005, we sued Goodrich in the United States District Court for the Western District of Kentucky to require Goodrich to accept the tendered reconveyance and to indemnify us for costs we incurred in connection with former Pond 4. Goodrich subsequently filed a third-party complaint against PolyOne, seeking to hold PolyOne responsible for any of Goodrich 's former Pond 4 liabilities to us. Goodrich moved to dismiss our suit against it, we filed a motion for partial summary judgment against Goodrich, and PolyOne moved to dismiss Goodrich 's third-party complaint against it. In March 2007, the court granted Goodrich 's motion to dismiss our claim that Goodrich is required to accept the tendered reconveyance. On December 18, 2009, the Cabinet withdrew its request for a RCRA permit application for former Pond 4. Thereafter, the parties agreed to dismiss the case without prejudice. The dismissal order was issued by the court on June 23, 2010.

*Monetary Relief.* Except as noted above, with respect to the settlement of the contract litigation among us, Goodrich and PolyOne, none of the court, the Cabinet nor the EPA has established any allocation of the costs of remediation among the various parties that are involved in the judicial and administrative proceedings discussed above. At this time, we are not able to estimate the loss, if any, that the resolution of these proceedings could have on our financial statements in 2011 and later years. Any cash expenditures that we might incur in the future with respect to the remediation of contamination at the complex would likely be spread out over an extended period. As a result, we believe it is unlikely that any remediation costs allocable to us will be material in terms of expenditures made in any individual reporting period.

*Environmental Investigations at Calvert City.* In 2002, the National Enforcement Investigations Center ( NEIC ) of the EPA investigated our manufacturing complex in Calvert City. In early 2004, the NEIC investigated our nearby PVC plant. The EPA subsequently submitted information requests to us under the Clean Air Act and RCRA. On September 17, 2010, after lengthy negotiations, a consent decree signed by the parties was filed with the United States District Court for the Western District of Kentucky, which settled claims arising out of the audits. Pursuant to the terms of the settlement, we agreed to pay a penalty totaling \$0.8 million and to modify our operations to reduce certain emissions and conduct enhanced monitoring. We also agreed to perform an investigation of certain sumps and containment areas at our PVC plant to determine if releases from those facilities have occurred.

*EPA Audit of Ethylene Units in Lake Charles.* During 2007, the EPA conducted an audit of our ethylene units in Lake Charles, with a focus on leak detection and repair, or LDAR. In January 2008, the U.S. Department of Justice, or DOJ, notified us that the EPA had referred the matter to the DOJ to bring a civil case against us alleging violations of various environmental laws and regulations. The DOJ informed us that it would seek monetary penalties and require us to implement an enhanced LDAR program for the ethylene units. Our representatives met with the EPA in February 2008 to conduct initial settlement discussions. While we can offer no assurance as to an outcome, we believe that the resolution of this matter will not have a material adverse effect on our financial condition, results of operations or cash flows.

**Table of Contents****Index to Financial Statements**

*General.* It is our policy to comply with all environmental, health and safety requirements and to provide safe and environmentally sound workplaces for our employees. In some cases, compliance can be achieved only by incurring capital expenditures, and we are faced with instances of noncompliance from time to time. In 2010, we made capital expenditures of \$4.2 million related to environmental compliance. We estimate that we will make capital expenditures of \$3.8 million in 2011 and \$5.3 million in 2012, respectively, related to environmental compliance. A significant percentage of the 2011 and 2012 estimated amounts are related to equipment replacement and upgrades. We anticipate that stringent environmental regulations will continue to be imposed on us and the industry in general. Although we cannot predict with certainty future expenditures, management believes that our current spending trends will continue.

It is difficult to estimate the future costs of environmental protection and remediation because of many uncertainties, including uncertainties about the status of laws, regulations and information related to individual locations and sites and our ability to rely on third parties to carry out such remediation. Subject to the foregoing, but taking into consideration our experience regarding environmental matters of a similar nature and facts currently known, and except for the outcome of pending litigation and regulatory proceedings, which we cannot predict, but which could have a material adverse effect on us, we believe that capital expenditures and remedial actions to comply with existing laws governing environmental protection will not have a material adverse effect on our business and financial results.

**Employees**

As of December 31, 2010, we had 1,873 employees in the following areas:

<b>Category</b>	<b>Number</b>
Olefins segment	692
Vinyls segment	1,064
Corporate	117

Approximately 10% of our employees are represented by labor unions and all of these employees are working under collective bargaining agreements. The collective bargaining agreements expire in 2014. There have been no strikes or lockouts and we have not experienced any work stoppages throughout our history. We believe that our relationship with the local union officials and bargaining committees is open and positive.

**Technology**

Historically, our technology strategy has been to selectively acquire and license third-party proprietary technology. Our selection process incorporates many factors, including the cost of the technology, our customers' requirements, raw material and energy consumption rates, product quality, capital costs, maintenance requirements and reliability. We own a patent portfolio of intellectual property related to the polyethylene business, as well as a research and development group that developed this intellectual property. We also need to evaluate and access third-party technology for our Olefins businesses. After acquiring a technology, we devote considerable efforts to further develop and effectively apply the technology with a view to continuously improve our competitive position.

We license technology from a number of third-party providers as follows:

MW Kellogg technology and ABB Lummus Crest technology for our ethylene plants at Lake Charles;

Mobil/Badger technology for our styrene plant at Lake Charles;

Aspen Technology technology for our advanced process control software;

Asahi Chemical membrane technology for our chlor-alkali plant;



Badger EBMax technology for our styrene plant at Lake Charles; and

INEOS (successor to BP Chemicals Ltd.) technology to produce LLDPE and HDPE at Lake Charles and Longview.

## **Table of Contents**

## **Index to Financial Statements**

With the exception of Aspen Technology, all of the other licenses are perpetual and have been paid in full.

We license out our patented Energx<sup>®</sup> technology for LLDPE production on a limited basis.

## **Segment and Geographic Information**

Information regarding sales, income (loss) from operations and assets attributable to each of our industry segments, Olefins and Vinyls, and geographical information is presented in Note 19 to our consolidated financial statements included in Item 8 of this Form 10-K.

## **Available Information**

Our Web site address is [www.westlake.com](http://www.westlake.com). We make our Web site content available for information purposes only. It should not be relied upon for investment purposes, nor is it incorporated by reference in this Form 10-K. We make available on this Web site under Investor Relations/SEC Filings, free of charge, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, amendments to those reports and proxy statements as soon as reasonably practicable after we electronically file those materials with, or furnish those materials to, the SEC. The SEC also maintains a Web site at [www.sec.gov](http://www.sec.gov) that contains reports, proxy statements and other information regarding SEC registrants, including us.

We intend to satisfy the requirement under Item 5.05 of Form 8-K to disclose any amendments to our Code of Ethics and any waiver from a provision of our Code of Ethics by posting such information on our Web site at [www.westlake.com](http://www.westlake.com) at Investor Relations/Corporate Governance.

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

***Cyclicity in the petrochemical industry has in the past, and may in the future, result in reduced operating margins or operating losses.***

Our historical operating results reflect the cyclical and volatile nature of the petrochemical industry. The industry is mature and capital intensive. Margins in this industry are sensitive to supply and demand balances both domestically and internationally, which historically have been cyclical. The cycles are generally characterized by periods of tight supply, leading to high operating rates and margins, followed by periods of oversupply primarily resulting from significant capacity additions, leading to reduced operating rates and lower margins.

Moreover, profitability in the petrochemical industry is affected by the worldwide level of demand along with vigorous price competition which may intensify due to, among other things, new domestic and foreign industry capacity. In general, weak economic conditions either in the United States or in the world tend to reduce demand and put pressure on margins. It is not possible to predict accurately the supply and demand balances, market conditions and other factors that will affect industry operating margins in the future.

Some Olefins industry consultants predict that significant increases in worldwide ethylene and ethylene derivative capacity over the past three years, primarily from the Middle East and Asia, will continue for the next several years. As a result, our Olefins segment operating margins may be negatively impacted.

PVC industry operating rates have dropped from peak levels in the second half of 2006 to much lower levels in 2010. In addition, weakness in the U.S. construction markets, which began in the third quarter of 2006, and more recently, the budgetary constraints in municipal spending, has contributed to lower demand for our vinyls products and negatively impacted our Vinyls segment. Looking forward, our Vinyls segment operating rates and margins may continue to be depressed due to the slow recovery of U.S. construction markets and recent and projected North American PVC capacity additions over the next year.

***We sell commodity products in highly competitive markets and face significant competition and price pressure.***

We sell our products in highly competitive markets. Due to the commodity nature of many of our products, competition in these markets is based primarily on price and to a lesser extent on performance, product quality,



## **Table of Contents**

### **Index to Financial Statements**

product deliverability and customer service. As a result, we generally are not able to protect our market position for these products by product differentiation and may not be able to pass on cost increases to our customers. Accordingly, increases in raw material and other costs may not necessarily correlate with changes in prices for these products, either in the direction of the price change or in magnitude. Specifically, timing differences in pricing between raw material prices, which may change daily, and contract product prices, which in many cases are negotiated only monthly or less often, sometimes with an additional lag in effective dates for increases, have had and may continue to have a negative effect on profitability. Significant volatility in raw material costs tends to place pressure on product margins as sales price increases could lag behind raw material cost increases. Conversely, when raw material costs decrease, customers could seek relief in the form of lower sales prices.

***Volatility in costs of raw materials and energy may result in increased operating expenses and adversely affect our results of operations and cash flow.***

Significant variations in the costs and availability of raw materials and energy may negatively affect our results of operations. These costs have risen significantly in the past due primarily to oil and natural gas cost increases. We purchase significant amounts of ethane and propane feedstock, natural gas, chlorine and salt to produce several basic chemicals. We also purchase significant amounts of electricity to supply the energy required in our production processes. The cost of these raw materials and energy, in the aggregate, represents a substantial portion of our operating expenses. The prices of raw materials and energy generally follow price trends of, and vary with market conditions for, crude oil and natural gas, which are highly volatile and cyclical. Our results of operations have been and could in the future be significantly affected by increases in these costs. Price increases increase our working capital needs and, accordingly, can adversely affect our liquidity and cash flow. In addition, because we utilize the first-in, first-out ( FIFO ) method of inventory accounting, during periods of falling raw material prices and declining sales prices, our results of operations for a particular reporting period could be negatively impacted as the lower sales prices would be reflected in operating income more quickly than the corresponding drop in feedstock costs. We use derivative instruments to reduce price volatility risk on some feedstock commodities. In the future, we may decide not to hedge any of our raw material costs or any hedges we enter into may not have successful results.

In addition, higher natural gas prices could adversely affect the ability of many domestic chemical producers to compete internationally since U.S. producers are disproportionately reliant on natural gas and natural gas liquids as an energy source and as a raw material. In addition to the impact that this has on our exports, reduced competitiveness of U.S. producers also has in the past increased the availability of chemicals in North America, as U.S. production that would otherwise have been sold overseas was instead offered for sale domestically, resulting in excess supply and lower prices in North America. We could also face the threat of imported products from countries that have a cost advantage.

***External factors beyond our control can cause fluctuations in demand for our products and in our prices and margins, which may negatively affect our results of operations and cash flow.***

External factors beyond our control can cause volatility in raw material prices, demand for our products, product prices and volumes and deterioration in operating margins. These factors can also magnify the impact of economic cycles on our business and results of operations. Examples of external factors include:

general economic conditions;

the level of business activity in the industries that use our products;

competitor action;

technological innovations;

currency fluctuations;

international events and circumstances;

governmental regulation in the United States and abroad;

---

**Table of Contents**

**Index to Financial Statements**

severe weather and natural disasters; and

credit worthiness of customers and vendors.

We believe that events in the Middle East have had a particular influence on demand, prices and margins in the past and may continue to do so in the future. In addition, a number of our products are highly dependent on durable goods markets, such as housing and construction, which are themselves particularly cyclical. The significant weakening of the U.S. residential housing market during recent years has had an adverse effect on demand and margins for our products. If the global economy worsens in general, or the U.S. residential housing market worsens in particular, demand for our products and our income and cash flow could be adversely affected to an even greater degree.

We may reduce production at or idle a facility for an extended period of time or exit a business because of high raw material prices, an oversupply of a particular product and/or a lack of demand for that particular product, which makes production uneconomical. Since 2007 we have closed a PVC window and door components plant and two PVC pipe plants. Temporary outages sometimes last for several quarters or, in certain cases, longer and cause us to incur costs, including the expenses of maintaining and restarting these facilities. Factors such as increases in raw material costs or lower demand in the future may cause us to further reduce operating rates, idle facilities or exit uncompetitive businesses.

Hostilities in the Middle East and/or the occurrence or threat of occurrence of terrorist attacks such as those against the United States on September 11, 2001 could adversely affect the economies of the United States and other developed countries. A lower level of economic activity could result in a decline in demand for our products, which could adversely affect our net sales and margins and limit our future growth prospects. In addition, these risks have increased in the past, and may continue to increase in the future. Volatility in prices for crude oil and natural gas could also result in increased feedstock costs. In addition, these risks could cause increased instability in the financial and insurance markets and could adversely affect our ability to access capital and to obtain insurance coverage that we consider adequate or is otherwise required by our contracts with third parties.

***The global financial crisis and economic downturn have had and may continue to have a negative impact on our business and financial condition.***

The global financial crisis and economic downturn have had, and may continue to have, an impact on our business and our financial condition. Our ability to access the capital markets may be severely restricted at a time when we would like, or need, to access such markets, which could have an impact on our flexibility to react to changing economic and business conditions. In addition, the availability of additional financing at cost effective interest rates cannot be assured. The economic downturn could have an impact on the lenders under our revolving credit facility or on our customers and suppliers, causing them to fail to meet their obligations to us. Additionally, the economic downturn resulted in reduced demand for our products, which had a negative impact on our revenues and profits. Further, reduced levels of accounts receivables and inventory affect our credit facility borrowing base. Our credit facility allows us to borrow up to the lesser of (1) the \$400.0 million maximum capacity and (2) the calculated borrowing base, which is based on trade receivables and inventory balances. With our reduced levels of working capital, the borrowing base of our credit facility was \$392.3 million as of December 31, 2010.

***Our inability to compete successfully may reduce our operating profits.***

The petrochemical industry is highly competitive. Historically, there have been a number of mergers, acquisitions, spin-offs and joint ventures in the industry. This restructuring activity has resulted in fewer but more competitive producers, many of which are larger than we are and have greater financial resources than we do. Among our competitors are some of the world's largest chemical companies and chemical industry joint ventures. Competition within the petrochemical industry and in the manufacturing of PVC building products is affected by a variety of factors, including:

product price;

**Table of Contents**

**Index to Financial Statements**

technical support and customer service;

quality;

reliability of supply;

availability of potential substitute materials; and

product performance.

Changes in the competitive environment could have a material adverse effect on our business and our operations. These changes could include:

the emergence of new domestic and international competitors;

the rate of capacity additions by competitors;

changes in customer base due to mergers;

the intensification of price competition in our markets;