

Edgar Filing: ARCH COAL INC - Form 10-K

ARCH COAL INC  
Form 10-K  
March 01, 2011

Table of Contents

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
Washington, DC 20549**

**Form 10-K**

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

**For the fiscal year ended December 31, 2010**

**Commission file number: 1-13105**

**(Exact name of registrant as specified in its charter)**

**Delaware**

**43-0921172**

(State or other jurisdiction  
of incorporation or organization)

(I.R.S. Employer  
Identification Number)

**One CityPlace Drive, Ste. 300, St. Louis, Missouri**  
(Address of principal executive offices)

**63141**  
(Zip code)

**Registrant's telephone number, including area code: (314) 994-2700**

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

**Title of Each Class**

Common Stock, \$.01 par value

**Name of Each Exchange on Which Registered**

New York Stock Exchange  
Chicago Stock Exchange

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

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

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

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

Edgar Filing: ARCH COAL INC - Form 10-K

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 filed). 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, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

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

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

The aggregate market value of the voting stock held by non-affiliates of the registrant (excluding outstanding shares beneficially owned by directors, officers and treasury shares) as of June 30, 2010 was approximately \$3.2 billion.

On February 22, 2011, 162,474,101 shares of the company's common stock, par value \$0.01 per share, were outstanding.

Portions of the company's definitive proxy statement for the annual stockholders' meeting to be held on April 28, 2011 are incorporated by reference into Part III of this Form 10-K.

---

## TABLE OF CONTENTS

	<b>Page</b>
<b>PART I</b>	
<u>ITEM 1.</u>	1
<u>ITEM 1A.</u>	29
<u>ITEM 1B.</u>	40
<u>ITEM 2.</u>	40
<u>ITEM 3.</u>	43
<u>ITEM 4.</u>	45
<b>PART II</b>	
<u>ITEM 5.</u>	48
<u>MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES</u>	
<u>ITEM 6.</u>	50
<u>SELECTED FINANCIAL DATA</u>	
<u>ITEM 7.</u>	51
<u>MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	
<u>ITEM 7A.</u>	70
<u>QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	
<u>ITEM 8.</u>	72
<u>FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA</u>	
<u>ITEM 9.</u>	72
<u>CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE</u>	
<u>ITEM 9A.</u>	72
<u>CONTROLS AND PROCEDURES</u>	
<u>ITEM 9B.</u>	72
<u>OTHER INFORMATION</u>	
<b>PART III</b>	
<u>ITEM 10.</u>	72
<u>DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE</u>	
<u>ITEM 11.</u>	72
<u>EXECUTIVE COMPENSATION</u>	
<u>ITEM 12.</u>	72
<u>SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS</u>	
<u>ITEM 13.</u>	72
<u>CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE</u>	
<u>ITEM 14.</u>	73
<u>PRINCIPAL ACCOUNTING FEES AND SERVICES</u>	
<b>PART IV</b>	
<u>ITEM 15.</u>	73
<u>EXHIBITS AND FINANCIAL STATEMENT SCHEDULES</u>	
<u>EX-4.7</u>	
<u>EX-4.10</u>	
<u>EX-10.7</u>	
<u>EX-10.40</u>	
<u>EX-10.41</u>	
<u>EX-12.1</u>	
<u>EX-21.1</u>	
<u>EX-23.1</u>	
<u>EX-23.2</u>	
<u>EX-24.1</u>	
<u>EX-31.1</u>	
<u>EX-31.2</u>	
<u>EX-32.1</u>	
<u>EX-32.2</u>	
<u>EX-101 INSTANCE DOCUMENT</u>	
<u>EX-101 SCHEMA DOCUMENT</u>	
<u>EX-101 CALCULATION LINKBASE DOCUMENT</u>	

Edgar Filing: ARCH COAL INC - Form 10-K

EX-101 LABELS LINKBASE DOCUMENT

EX-101 PRESENTATION LINKBASE DOCUMENT

EX-101 DEFINITION LINKBASE DOCUMENT

---

**Table of Contents**

*If you are not familiar with any of the mining terms used in this report, we have provided explanations of many of them under the caption *Glossary of Selected Mining Terms* on page 28 of this report. Unless the context otherwise requires, all references in this report to Arch, we, us, or our are to Arch Coal, Inc. and its subsidiaries.*

**CAUTIONARY STATEMENTS REGARDING FORWARD-LOOKING INFORMATION**

This report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, such as our expected future business and financial performance, and are intended to come within the safe harbor protections provided by those sections. The words anticipates, believes, could, estimates, expects, intends, may, plans, predicts, projects, other comparable words and phrases identify forward-looking statements, which speak only as of the date of this report. Forward-looking statements by their nature address matters that are, to different degrees, uncertain. Actual results may vary significantly from those anticipated due to many factors, including:

- market demand for coal and electricity;
- geologic conditions, weather and other inherent risks of coal mining that are beyond our control;
- competition within our industry and with producers of competing energy sources;
- excess production and production capacity;
- our ability to acquire or develop coal reserves in an economically feasible manner;
- inaccuracies in our estimates of our coal reserves;
- availability and price of mining and other industrial supplies;
- availability of skilled employees and other workforce factors;
- disruptions in the quantities of coal produced by our contract mine operators;
- our ability to collect payments from our customers;
- defects in title or the loss of a leasehold interest;
- railroad, barge, truck and other transportation performance and costs;
- our ability to successfully integrate the operations that we acquire;
- our ability to secure new coal supply arrangements or to renew existing coal supply arrangements;
- our relationships with, and other conditions affecting, our customers;
- the deferral of contracted shipments of coal by our customers;
- our ability to service our outstanding indebtedness;
- our ability to comply with the restrictions imposed by our credit facility and other financing arrangements;

the availability and cost of surety bonds;

failure by Magnum Coal Company, which we refer to as Magnum, a subsidiary of Patriot Coal Corporation, to satisfy certain below-market contracts that we guarantee;

our ability to manage the market and other risks associated with certain trading and other asset optimization strategies;

terrorist attacks, military action or war;

our ability to obtain and renew various permits, including permits authorizing the disposition of certain mining waste;

---

**Table of Contents**

existing and future legislation and regulations affecting both our coal mining operations and our customers' coal usage, governmental policies and taxes, including those aimed at reducing emissions of elements such as mercury, sulfur dioxides, nitrogen oxides, particulate matter or greenhouse gases;

the accuracy of our estimates of reclamation and other mine closure obligations;

the existence of hazardous substances or other environmental contamination on property owned or used by us; and

the other factors affecting our business described below under the caption Risk Factors.

All forward-looking statements in this report, as well as all other written and oral forward-looking statements attributable to us or persons acting on our behalf, are expressly qualified in their entirety by the cautionary statements contained in this section and elsewhere in this report. See Items 1A Risk Factors, 7 Management's Discussion and Analysis of Financial Condition and Results of Operations and 7A Quantitative and Qualitative Disclosures About Market Risk for additional information about factors that may affect our businesses and operating results. These factors are not necessarily all of the important factors that could affect us. These risks and uncertainties, as well as other risks of which we are not aware or which we currently do not believe to be material, may cause our actual future results to be materially different than those expressed in our forward-looking statements. We do not undertake to update our forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required by law.

---

**Table of Contents**

**PART I**

**ITEM 1. BUSINESS.**

**Introduction**

We are one of the world's largest coal producers. For the year ended December 31, 2010 we sold approximately 162.8 million tons of coal, including approximately 6.9 million tons of coal we purchased from third parties, representing roughly 15% of U.S. coal supply. We sell substantially all of our coal to power plants, steel mills and industrial facilities. At December 31, 2010, we operated, or contracted out the operation of, 23 active mines located in each of the major low-sulfur coal-producing regions of the United States. The locations of our mines and access to export facilities enable us to ship coal to most of the major coal-fueled power plants, industrial facilities and steel mills located within the United States and on four continents worldwide.

Significant federal and state environmental regulations affect the demand for coal. Existing environmental regulations limiting the emission of certain impurities caused by coal combustion and new regulations have had, and are likely to continue to have, a considerable impact on our business. For example, certain federal and state environmental regulations currently limit the amount of sulfur dioxide that may be emitted as a result of combustion. As a result, we focus on mining, processing and marketing coal with low sulfur content.

Despite these and other regulations, we expect worldwide coal demand to increase over time, particularly in developing countries such as China and India, where electricity demand is increasing at a much faster rate than in developed parts of the world. Although the global economic recession has had a significant impact on certain regions, we expect worldwide energy demand to increase over the next 20 years. As a result of its availability, stability and affordability, coal is likely to satisfy a large portion of that demand.

**Our History**

We were organized in Delaware in 1969 as Arch Mineral Corporation. In July 1997, we merged with Ashland Coal, Inc., a subsidiary of Ashland Inc. that was formed in 1975. As a result of the merger, we became one of the largest producers of low-sulfur coal in the eastern United States.

In June 1998, we expanded into the western United States when we acquired the coal assets of Atlantic Richfield Company, which we refer to as ARCO. This acquisition included the Black Thunder and Coal Creek mines in the Powder River Basin of Wyoming, the West Elk mine in Colorado and a 65% interest in Canyon Fuel Company, which operates three mines in Utah. In October 1998, we acquired a leasehold interest in the Thundercloud reserve, a 412-million-ton federal reserve tract adjacent to the Black Thunder mine.

In July 2004, we acquired the remaining 35% interest in Canyon Fuel Company. In August 2004, we acquired Triton Coal Company's North Rochelle mine adjacent to our Black Thunder operation. In September 2004, we acquired a leasehold interest in the Little Thunder reserve, a 719-million-ton federal reserve tract adjacent to the Black Thunder mine.

In December 2005, we sold the stock of Hobet Mining, Inc., Apogee Coal Company and Catenary Coal Company and their four associated mining complexes (Hobet 21, Arch of West Virginia, Samples and Campbells Creek) and approximately 455.0 million tons of coal reserves in Central Appalachia to Magnum.

## Edgar Filing: ARCH COAL INC - Form 10-K

On October 1, 2009, we acquired Rio Tinto's Jacobs Ranch mine complex in the Powder River Basin of Wyoming, which included 345 million tons of low-cost, low-sulfur coal reserves, and integrated it into the Black Thunder mine.

### **Coal Characteristics**

In general, end users characterize coal as steam coal or metallurgical coal. Heat value, sulfur, ash, moisture content, and volatility in the case of metallurgical coal, are important variables in the marketing and

**Table of Contents**

transportation of coal. These characteristics help producers determine the best end use of a particular type of coal. The following is a description of these general coal characteristics:

***Heat Value.*** In general, the carbon content of coal supplies most of its heating value, but other factors also influence the amount of energy it contains per unit of weight. The heat value of coal is commonly measured in Btus. Coal is generally classified into four categories, ranging from lignite, subbituminous, bituminous and anthracite, reflecting the progressive response of individual deposits of coal to increasing heat and pressure. Anthracite is coal with the highest carbon content and, therefore, the highest heat value, nearing 15,000 Btus per pound. Bituminous coal, used primarily to generate electricity and to make coke for the steel industry, has a heat value ranging between 10,500 and 15,500 Btus per pound. Subbituminous coal ranges from 8,300 to 13,000 Btus per pound and is generally used for electric power generation. Lignite coal is a geologically young coal which has the lowest carbon content and a heat value ranging between 4,000 and 8,300 Btus per pound.

***Sulfur Content.*** Federal and state environmental regulations, including regulations that limit the amount of sulfur dioxide that may be emitted as a result of combustion, have affected and may continue to affect the demand for certain types of coal. The sulfur content of coal can vary from seam to seam and within a single seam. The chemical composition and concentration of sulfur in coal affects the amount of sulfur dioxide produced in combustion. Coal-fueled power plants can comply with sulfur dioxide emission regulations by burning coal with low sulfur content, blending coals with various sulfur contents, purchasing emission allowances on the open market and/or using sulfur-dioxide emission reduction technology.

All of our identified coal reserves have been subject to preliminary coal seam analysis to test sulfur content. Of these reserves, approximately 83% consist of compliance coal, while an additional 6% could be sold as low-sulfur coal. The balance is classified as high-sulfur coal. Higher sulfur coal can be burned in plants equipped with sulfur-dioxide emission reduction technology, such as scrubbers, and in facilities that blend compliance and noncompliance coal.

***Ash.*** Ash is the inorganic residue remaining after the combustion of coal. As with sulfur, ash content varies from seam to seam. Ash content is an important characteristic of coal because it impacts boiler performance and electric generating plants must handle and dispose of ash following combustion. The composition of the ash, including the proportion of sodium oxide and fusion temperature, are important characteristics of coal and help determine the suitability of the coal to end users. The absence of ash is also important to the process by which metallurgical coal is transformed into coke for use in steel production.

***Moisture.*** Moisture content of coal varies by the type of coal, the region where it is mined and the location of the coal within a seam. In general, high moisture content decreases the heat value and increases the weight of the coal, thereby making it more expensive to transport. Moisture content in coal, on an as-sold basis, can range from approximately 2% to over 30% of the coal's weight.

***Other.*** Users of metallurgical coal measure certain other characteristics, including fluidity, swelling capacity and volatility to assess the strength of coke produced from a given coal or the amount of coke that certain types of coal will yield. These characteristics may be important elements in determining the value of the metallurgical coal we produce and market.

## **The Coal Industry**

***Global Coal Supply and Demand.*** Recovery from the 2008 upheaval in the global financial markets continued in 2010. Growth rates varied in 2010 in both emerging market economies and advanced market economies, as countries worked to rebalance their reliance on domestic consumption against export demand growth. Recovering international coal demand led to a substantial rise in the global demand for coal from the United States during 2010.

## Edgar Filing: ARCH COAL INC - Form 10-K

Coal is traded globally and can be transported to demand centers by ship, rail, barge, and truck. Worldwide coal production approximated 6.9 billion tonnes in 2009, up from 6.7 billion tonnes in 2008, according to the International Energy Agency (IEA). China remains the largest producer of coal in the world, producing over

Table of Contents

2.97 billion tonnes in 2009, according to the IEA. China is followed in coal production by the USA at approximately 919 million tonnes and India at nearly 526 million tonnes. China's coal exports have dwindled to approximately 20 million tonnes per year and imports have increased to over 160 million tonnes per year in 2010 as domestic demands exceed domestic supply. Japan maintained its ranking as the top importer of coal with 183 million tonnes in 2009, followed by China and South Korea at 118 million tonnes.

International demand for coal continues to be driven by growth in electrical power generation. Coal remains the leading fuel for power generation in the IEA's World Energy Outlook scenarios. Coal's share of global electricity generation remains between 41% and 43% through 2035 in the Current Policies Scenario. Growth is most significant in non-OECD countries where electricity from coal grows from approximately 46% of total electricity generation in 2008 to approximately 50% in 2035. China is the world's largest consumer of coal, and China and India together account for 72% of the new coal-fired generation currently under construction and expected to come online in the next five years.

Metallurgical or coking coal is used in the steel making process. The steel industry uses metallurgical coal, which is distinguishable from other types of coal by its high carbon content, low expansion pressure, low sulfur content and various other chemical attributes. As such, the price offered by steel makers for metallurgical coal is generally higher than the price offered by power plants and industrial users for steam coal. Coal is used in nearly 70% of global steel production. In 2010, approximately 1.395 billion tonnes of steel was produced, which represented a recovery of 15% over 2009 reduced levels.

Supplying the global power and steel markets are Australia, historically the world's largest coal exporter with exports of approximately 300 million tonnes in 2010, as well as Indonesia, Russia, United States, Colombia, and South Africa. Indonesia, in particular, has seen substantial growth in its coal exports in the last few years; however, its growing domestic energy demand may result in a decrease in exports as it moves toward greater self-sufficiency. Total U.S. exports were 81 million tonnes in 2010. As global economic conditions continue to improve and growth accelerates, putting pressure on global coal supply networks, we expect the demand for U.S. coal exports to continue to grow.

*U.S. Coal Consumption.* In the United States, coal is used primarily by power plants to generate electricity, by steel companies to produce coke for use in blast furnaces and by a variety of industrial users to heat and power foundries, cement plants, paper mills, chemical plants and other manufacturing or processing facilities. Coal consumption in the United States increased from 398.1 million tons in 1960 to approximately 1.0 billion tons in 2010, according to the Energy Information Administration's (EIA) Short Term Energy Outlook. Although full-year data for 2010 is not yet available, coal consumption has improved over what was lost during the global downturn that affected U.S. coal consumption in 2009. In 2010, coal consumption in the United States improved through stronger electricity demand driven by both a recovering economy and favorable weather.

The following chart shows historical and projected demand trends for U.S. coal by consuming sector for the periods indicated, according to the EIA:

Sector	Actual 2005	Estimated 2010	Forecast			Annual Growth 2009-2035
			2011	2020	2035	
(Tons, in millions)						
Electric power	1,037	977	950	986	1,129	0.7%
Other industrial	60	47	48	49	47	0.1%

Edgar Filing: ARCH COAL INC - Form 10-K

Coke plants	23	21	22	22	18	0.6%
Residential/commercial	4	3	3	3	3	-0.2%
Coal-to-liquids				16	105	n/a
Total U.S. coal consumption	1,126	1,048	1,022	1,076	1,302	1.0%

Source: EIA Annual Energy Outlook 2011

EIA Short Term Energy Outlook (January 2011)

EIA Monthly Energy Review (December 2010)

**Table of Contents**

According to the EIA, coal accounted for approximately 45% of U.S. electricity generation in 2010, and based on a projected 25% growth in electricity demand, coal consumption is expected to grow about 19% by 2035, reaching 1.1 billion tons. These amounts assume no future federal or state carbon emissions legislation is enacted and do not take into account subsequent market conditions. Historically, coal has been considerably less expensive than natural gas or oil.

The following chart shows the breakdown of U.S. electricity generation by energy source for 2010, according to the EIA:

Source: EIA Monthly Flash Estimate of Electric Power Data (January 2011).

Average prices for oil in the United States increased during 2010 following the effects of the worldwide economic recession. Historically, volatile oil prices and global energy security concerns have increased interest in converting coal into liquid fuel, a process known as liquefaction. Liquid fuel produced from coal can be further refined to produce transportation fuels, such as low-sulfur diesel fuel, gasoline and other oil products, such as plastics and solvents. Currently, there are only a limited number of projects moving forward because of lower oil and natural gas prices.

*U.S. Coal Production.* The United States is the second largest coal producer in the world, exceeded only by China. According to the EIA, there are over 200 billion tons of recoverable coal in the United States. The U.S. Department of Energy estimates that current domestic recoverable coal reserves could supply enough electricity to satisfy domestic demand for approximately 200 years. Annual coal production in the United States has increased from 434 million tons in 1960 to approximately 1.1 billion tons in 2010.

Coal is mined from coal fields throughout the United States, with the major production centers located in the western United States, the Appalachian region and the Illinois Basin.

Major regions in the West include the Powder River Basin and the Western Bituminous region. According to the EIA, coal produced in the western United States increased from 408 million tons in 1994 to an estimated 636 million tons in 2010, as competitive mining costs and regulations limiting sulfur-dioxide emissions have continued to increase demand for low-sulfur coal over this period. The Powder River Basin is located in northeastern Wyoming and southeastern Montana. Coal from this region is sub-bituminous coal with low sulfur content ranging from 0.2% to 0.9% and heating values ranging from 8,000 to 9,500 Btu. The price of Powder River Basin coal is generally less than that of coal produced in other regions because Powder River Basin coal exists in greater abundance, is easier to mine and thus has a lower cost of production. In addition, Powder River Basin coal is generally lower in heat value, which requires some electric power generation facilities to blend it with higher Btu coal or retrofit some existing coal plants to accommodate lower Btu coal. The Western Bituminous region includes Colorado, Utah and southern Wyoming. Coal from this region typically has low sulfur content ranging from 0.4% to 0.8% and heating values ranging from 10,000 to 12,200 Btu.

**Table of Contents**

Regions in the East include the north, central and southern Appalachian regions. According to the EIA, coal produced in the Appalachian region decreased from 445 million tons in 1994 to an estimated 338 million tons in 2010 primarily as a result of the depletion of economically attractive reserves, permitting issues and increasing costs of production. Central Appalachia includes eastern Kentucky, Tennessee, Virginia and southern West Virginia. Coal mined from this region generally has a high heat value ranging from 11,400 to 13,200 Btu and a low sulfur content ranging from 0.2% to 2.0%. Northern Appalachia includes Maryland, Ohio, Pennsylvania and northern West Virginia. Coal from this region generally has a high heat value ranging from 10,300 to 13,500 Btu and a high sulfur content ranging from 0.8% to 4.0%. Southern Appalachia primarily covers Alabama and generally has a heat content ranging from 11,300 to 12,300 Btu and a sulfur content ranging from 0.7% to 3.0%.

The Illinois Basin includes Illinois, Indiana and western Kentucky and is the major coal production center in the interior region of the United States. According to the EIA, coal produced in the interior region decreased from 180 million tons in 1994 to approximately 105 million tons in 2010. Coal from the Illinois Basin generally has a heat value ranging from 10,100 to 12,600 Btu and has a high sulfur content ranging from 1.0% to 4.3%. Despite its high sulfur content, coal from the Illinois basin can generally be used by some electric power generation facilities that have installed pollution control devices, such as scrubbers, to reduce emissions. Other coal-producing states in the interior include Arkansas, Kansas, Louisiana, Mississippi, Missouri, North Dakota, Oklahoma and Texas.

*U.S. Coal Exports and Imports.* U.S exports increased substantially over 2009, supported by recovering global economies and continued growth in Chinese and Indian steel markets in particular. This is a trend we expect to continue. Because of this, we believe that the United States will continue to be an increasingly important supplier of coal to the global marketplace in the near term.

Historically, coal imported from abroad has represented a relatively small share of total U.S. coal consumption, and this remained the case in 2010. According to the EIA, coal imports increased from 9 million tons in 1994 to an estimated 19 million tons in 2010. Imports did reach close to 36 million tons in 2007, but have fallen since then. The decline is mostly attributed to more competitive pricing for domestic coal and stronger demand from non-U.S. markets for seaborne coal. Coal is imported into the United States primarily from Colombia, Indonesia and Venezuela. Imported coal generally serves coastal states along the Gulf of Mexico, such as Alabama and Florida, and states along the eastern seaboard. We do not expect imports to be significant in 2011 and beyond, as more and more global coal will likely be directed to Asia.

## **Coal Mining Methods**

The geological characteristics of our coal reserves largely determine the coal mining method we employ. We use two primary methods of mining coal: surface mining and underground mining.

*Surface Mining.* We use surface mining when coal is found close to the surface. We have included the identity and location of our surface mining operations below under Our Mining Operations General. In 2010, approximately 85% of the coal that we produced came from surface mining operations.

Surface mining involves removing the topsoil then drilling and blasting the overburden (earth and rock covering the coal) with explosives. We then remove the overburden with heavy earth-moving equipment, such as draglines, power shovels, excavators and loaders. Once exposed, we drill, fracture and systematically remove the coal using haul trucks or conveyors to transport the coal to a preparation plant or to a loadout facility. We reclaim disturbed areas as part of our normal mining activities. After final coal removal, we use draglines, power shovels, excavators or loaders to backfill the remaining pits with the overburden removed at the beginning of the process. Once we have replaced the overburden and topsoil, we reestablish vegetation and plant life into the natural habitat and make other improvements that have local community and environmental benefits.



**Table of Contents**

The following diagram illustrates a typical dragline surface mining operation:

*Underground Mining.* We use underground mining methods when coal is located deep beneath the surface. We have included the identity and location of our underground mining operations in the table Our Mining Operations General. In 2010, approximately 15% of the coal that we produced came from underground mining operations.

Our underground mines are typically operated using one or both of two different mining techniques: longwall mining and room-and-pillar mining.

*Longwall Mining.* Longwall mining involves using mechanical shearer to extract coal from long rectangular blocks of medium to thick seams. Ultimate seam recovery using longwall mining techniques can exceed 75%. In longwall mining, we use continuous miners to develop access to these long rectangular coal blocks. Hydraulically powered supports temporarily hold up the roof of the mine while a rotating drum mechanically advances across the face of the coal seam, cutting the coal from the face. Chain conveyors then move the loosened coal to an underground mine conveyor system for delivery to the surface. Once coal is extracted from an area, the roof is allowed to collapse in a controlled fashion. In 2010, approximately 14% of the coal that we produced came from underground mining operations generally using longwall mining techniques.

**Table of Contents**

The following diagram illustrates a typical underground mining operation using longwall mining techniques:

*Room-and-Pillar Mining.* Room-and-pillar mining is effective for small blocks of thin coal seams. In room-and-pillar mining, we cut a network of rooms into the coal seam, leaving a series of pillars of coal to support the roof of the mine. We use continuous miners to cut the coal and shuttle cars to transport the coal to a conveyor belt for further transportation to the surface. The pillars generated as part of this mining method can constitute up to 40% of the total coal in a seam. Higher seam recovery rates can be achieved if retreat mining is used. In retreat mining, coal is mined from the pillars as workers retreat. As retreat mining occurs, the roof is allowed to collapse in a controlled fashion. We currently conduct retreat mining in certain underground mines at our Cumberland River and Lone Mountain mining complexes. In 2010, the quantities of coal we recovered from retreat mining represented an insignificant portion of our total coal production. Once we finish mining in an area, we generally abandon that area and seal it from the rest of the mine.

The following diagram illustrates our typical underground mining operation using room-and-pillar mining techniques:

**Table of Contents**

*Coal Preparation and Blending.* We crush the coal mined from our Powder River Basin mining complexes and ship it directly from our mines to the customer. Typically, no additional preparation is required for a saleable product. Coal extracted from some of our underground mining operations contains impurities, such as rock, shale and clay, and occurs in a wide range of particle sizes. Each of our mining operations in the Central Appalachia region and a few of our mines in the Western Bituminous region use a coal preparation plant located near the mine or connected to the mine by a conveyor. These coal preparation plants allow us to treat the coal we extract from those mines to ensure a consistent quality and to enhance its suitability for particular end-users. In 2010, our preparation plants processed approximately 80% to 85% of the raw coal we produced in the Central Appalachia region. In addition, depending on coal quality and customer requirements, we may blend coal mined from different locations, including coal produced by third parties, in order to achieve a more suitable product.

The treatments we employ at our preparation plants depend on the size of the raw coal. For course material, the separation process relies on the difference in the density between coal and waste rock where, for the very fine fractions, the separation process relies on the difference in surface chemical properties between coal and the waste minerals. To remove impurities, we crush raw coal and classify it into various sizes. For the largest size fractions, we use dense media vessel separation techniques in which we float coal in a tank containing a liquid of a pre-determined specific gravity. Since coal is lighter than its impurities, it floats, and we can separate it from rock and shale. We treat intermediate sized particles with dense medium cyclones, in which a liquid is spun at high speeds to separate coal from rock. Fine coal is treated in spirals, in which the differences in density between coal and rock allow them, when suspended in water, to be separated. Ultra fine coal is recovered in column flotation cells utilizing the differences in surface chemistry between coal and rock. By injecting stable air bubbles through a suspension of ultra fine coal and rock, the coal particles adhere to the bubbles and rise to the surface of the column where they are removed. To minimize the moisture content in coal, we process most coal sizes through centrifuges. A centrifuge spins coal very quickly, causing water accompanying the coal to separate.

For more information about the locations of our preparation plants, you should see the section entitled **Our Mining Operations** below.

### **Our Mining Operations**

*General.* At December 31, 2010, we operated, or contracted out the operation of, 23 active mines at 11 mining complexes located in the United States. We have three reportable business segments, which are based on the low-sulfur coal producing regions in the United States in which we operate the Powder River Basin, the Western Bituminous region and the Central Appalachia region. These geographically distinct areas are characterized by geology, coal transportation routes to consumers, regulatory environments and coal quality. These regional distinctions have caused market and contract pricing environments to develop by coal region and form the basis for the segmentation of our operations. We incorporate by reference the information about the operating results of each of our segments for the years ended December 31, 2010, 2009 and 2008 contained in Note 22 beginning on page F-39.

Our operations in the Powder River Basin are located in Wyoming and include two surface mining complexes (Black Thunder and Coal Creek). Our operations in the Western Bituminous region are located in southern Wyoming, Colorado and Utah and include four underground mining complexes (Dugout Canyon, Skyline, Sufco and West Elk) and one surface mining complex (Arch of Wyoming). Our operations in the Central Appalachia region are located in southern West Virginia, eastern Kentucky and southwestern Virginia and include four mining complexes (Coal-Mac, Cumberland River, Lone Mountain and Mountain Laurel).

In general, we have developed our mining complexes and preparation plants at strategic locations in close proximity to rail or barge shipping facilities. Coal is transported from our mining complexes to customers by means of railroads, trucks, barge lines, and ocean-going vessels from terminal facilities. We currently own or lease under long-term

## Edgar Filing: ARCH COAL INC - Form 10-K

arrangements a substantial portion of the equipment utilized in our mining operations. We employ sophisticated preventative maintenance and rebuild programs and upgrade our equipment to ensure

Table of Contents

that it is productive, well-maintained and cost-competitive. Our maintenance programs also employ procedures designed to enhance the efficiencies of our operations.

The following map shows the locations of our mining operations:

The following table provides a summary of information regarding our active mining complexes at December 31, 2010, the total sales associated with these complexes for the years ended December 31, 2008, 2009 and 2010 and the total reserves associated with these complexes at December 31, 2010. The amount disclosed below for the total cost of property, plant and equipment of each mining complex does not include the costs of the coal reserves that we have assigned to an individual complex. The information included in the following table describes in more detail our mining operations, the coal mining methods used, certain characteristics of our coal and the method by which we transport coal from our mining operations to our customers or other third parties.

Mining Complex	Captive Mines(1)	Contract Mines(1)	Mining Equipment	Railroad	Tons Sold(2)			December 31, 2010 (\$ in millions)	Assigned Reserves (Million tons)	Total Cost of Property, Plant and Equipment at
	2008	2009	2010	(Million tons)	2010					
<b>Powder River Basin:</b>										
Black Thunder	S		D, S	UP/BN	88.5	81.2	116.2	\$ 1,039.2		1,405.7
Coal Creek	S		D, S	UP/BN	11.5	9.8	11.4	149.0		184.8
<b>Western Bituminous:</b>										
Arch of Wyoming	S		L	UP	0.2	0.1	0.1	22.8		14.8
Dugout Canyon	U		LW, CM	UP	4.3	3.2	2.3	138.4		10.8
Skyline	U		LW, CM	UP	3.3	2.8	2.9	164.3		17.1
Sufco	U		LW, CM	UP	7.4	6.6	6.1	225.3		56.5
West Elk	U		LW, CM	UP	5.3	4.0	4.8	466.9		63.7
<b>Central Appalachia:</b>										
Coal-Mac	S	U	L, E	NS/CSX	3.7	2.9	3.2	177.3		33.5
Cumberland River	S(1), U(3)	U(4)	L, CM, HW	NS	2.4	1.6	1.5	144.7		29.9
Lone Mountain	U(3)		CM	NS/CSX	2.7	2.2	2.1	209.8		30.5
Mountain Laurel	U	S(2)	L, LW, CM	CSX	4.3	4.4	5.1	466.9		80.9
Totals					133.6	118.8	155.7	\$ 3,204.6		1,928.1

Table of Contents

S = Surface mine  
U = Underground mine

D = Dragline  
L = Loader/truck  
  
S = Shovel/truck  
E = Excavator/truck  
LW = Longwall  
CM = Continuous miner  
HW = Highwall miner

UP = Union Pacific Railroad  
CSX = CSX Transportation  
BN = Burlington Northern-Santa Fe Railway  
NS = Norfolk Southern Railroad

- (1) Amounts in parentheses indicate the number of captive and contract mines at the mining complex at December 31, 2010. Captive mines are mines that we own and operate on land owned or leased by us. Contract mines are mines that other operators mine for us under contracts on land owned or leased by us.
- (2) Tons of coal we purchased from third parties that were not processed through our loadout facilities are not included in the amounts shown in the table above.

**Powder River Basin**

*Black Thunder.* Black Thunder is a surface mining complex located on approximately 33,800 acres in Campbell County, Wyoming. The Black Thunder mining complex extracts steam coal from the Upper Wyodak and Main Wyodak seams. The Black Thunder mining complex shipped 116.2 million tons of coal in 2010.

We control a significant portion of the coal reserves through federal and state leases. The Black Thunder mining complex had approximately 1,405.7 billion tons of proven and probable reserves at December 31, 2010. The air quality permit for the Black Thunder mine allows for the mining of coal at a rate of 190.0 million tons per year. Without the addition of more coal reserves, the current reserves could sustain current production levels until 2021 before annual output starts to significantly decline, although in practice production would drop in phases extending the ultimate mine life. Several large tracts of coal adjacent to the Black Thunder mining complex have been nominated for lease, and other potential large areas of unleased coal remain available for nomination by us or other mining operations. The U.S. Department of Interior Bureau of Land Management, which we refer to as the BLM, will determine if the tracts will be leased and, if so, the final boundaries of, and the coal tonnage for, these tracts.

The Black Thunder mining complex currently consists of seven active pit areas and three loadout facilities. We ship all of the coal raw to our customers via the Burlington Northern-Santa Fe and Union Pacific railroads. We do not process the coal mined at this complex. Each of the loadout facilities can load a 15,000-ton train in less than two hours.

*Coal Creek.* Coal Creek is a surface mining complex located on approximately 7,400 acres in Campbell County, Wyoming. The Coal Creek mining complex extracts steam coal from the Wyodak-R1 and Wyodak-R3 seams. The Coal Creek mining complex shipped 11.4 million tons of coal in 2010.

We control a significant portion of the coal reserves through federal and state leases. The Coal Creek mining complex had approximately 184.8 million tons of proven and probable reserves at December 31, 2010. The air quality permit for the Coal Creek mine allows for the mining of coal at a rate of 50.0 million tons per year. Without the addition of more coal reserves, the current reserves will sustain current production levels until 2025 before annual output starts to significantly decline. One tract of coal adjacent to the Coal Creek mining complex has been nominated for lease, and other potential areas of unleased coal remain available for nomination by us or other mining operations. The BLM will

**Edgar Filing: ARCH COAL INC - Form 10-K**

determine if these tracts will be leased and, if so, the final boundaries of, and the coal tonnage for, these tracts.

The Coal Creek complex currently consists of two active pit areas and a loadout facility. We ship all of the coal raw to our customers via the Burlington Northern-Santa Fe and Union Pacific railroads. We do not process the coal mined at this complex. The loadout facility can load a 15,000-ton train in less than three hours.

**Table of Contents**

**Western Bituminous**

*Arch of Wyoming.* Arch of Wyoming is a surface mining complex located in Carbon County, Wyoming. The Arch of Wyoming complex currently consists of one active surface mine and four inactive mines located on approximately 58,000 acres that are in the final process of reclamation and bond release. The Arch of Wyoming mining complex extracts coal from the Johnson seam. The Arch of Wyoming complex shipped 0.1 million tons of coal in 2010.

We control a significant portion of the coal reserves associated with this complex through federal, state and private leases. The active Arch of Wyoming mining operations had approximately 14.8 million tons of proven and probable reserves at December 31, 2010. The air quality permit for the active Arch of Wyoming mining operation allows for the mining of coal at a rate of 2.5 million tons per year. Without the addition of more coal reserves, the current reserves will sustain current production levels until 2018 before annual output starts to significantly decline.

The active Arch of Wyoming mining operations currently consist of one active pit area. We ship all of the coal raw to our customers via the Union Pacific railroad and by truck. We do not process the coal mined at this complex.

*Dugout Canyon.* Dugout Canyon mine is an underground mining complex located on approximately 18,572 acres in Carbon County, Utah. The Dugout Canyon mining complex has extracted steam coal from the Rock Canyon and Gilson seams. The Dugout Canyon mining complex shipped 2.3 million tons of coal in 2010.

We control a significant portion of the coal reserves through federal and state leases. The Dugout Canyon mining complex had approximately 10.8 million tons of proven and probable reserves at December 31, 2010. The coal seam currently being mined will sustain current production levels until approximately mid-2012, at which point we will need to transition to another coal seam to continue mining.

The complex currently consists of a longwall, three continuous miner sections and a truck loadout facility. We ship all of the coal to our customers via the Union Pacific railroad or by highway trucks. We wash a portion of the coal we produce at a 400-ton-per-hour preparation plant. The loadout facility can load approximately 20,000 tons of coal per day into highway trucks. Coal shipped by rail is loaded through a third-party facility capable of loading an 11,000-ton train in less than three hours.

*Skyline.* Skyline is an underground mining complex located on approximately 13,230 acres in Carbon and Emery Counties, Utah. The Skyline mining complex extracts steam coal from the Lower O'Conner A seam. The Skyline mining complex shipped 2.9 million tons of coal in 2010.

We control a significant portion of the coal reserves through federal leases and smaller portions through county and private leases. The Skyline mining complex had approximately 17.1 million tons of proven and probable reserves at December 31, 2010. The reserve area currently being mined will sustain current production levels through 2012, at which point we plan to transition to a new reserve area in order to continue mining.

The Skyline complex currently consists of a longwall, two continuous miner section and a loadout facility. We ship most of the coal raw to our customers via the Union Pacific railroad or by highway trucks. We process a portion of the coal mined at this complex at a nearby preparation plant. The loadout facility can load a 12,000-ton train in less than four hours.

*Sufco.* Sufco is an underground mining complex located on approximately 27,550 acres in Sevier County, Utah. The Sufco mining complex extracts steam coal from the Upper Hiawatha seam. The Sufco mining complex shipped 6.1 million tons of coal in 2010.

## Edgar Filing: ARCH COAL INC - Form 10-K

We control a significant portion of the coal reserves through federal and state leases. The Sufco mining complex had approximately 56.5 million tons of proven and probable reserves at December 31, 2010. The coal seam currently being mined will sustain current production levels through 2020, at which point a new coal seam will have to be accessed in order to continue mining.

**Table of Contents**

The Sufco complex currently consists of a longwall, three continuous miner sections and a loadout facility located approximately 80 miles from the mine. We ship all of the coal raw to our customers via the Union Pacific railroad or by highway trucks. Processing at the mine site consists of crushing and sizing. The rail loadout facility is capable of loading an 11,000-ton train in less than three hours.

*West Elk.* West Elk is an underground mining complex located on approximately 17,900 acres in Gunnison County, Colorado. The West Elk mining complex extracts steam coal from the E seam. The West Elk mining complex shipped 4.8 million tons of coal in 2010.

We control a significant portion of the coal reserves through federal and state leases. The West Elk mining complex had approximately 63.7 million tons of proven and probable reserves at December 31, 2010. Without the addition of more coal reserves, the current reserves will sustain current production levels through 2019 before annual output starts to significantly decline.

The West Elk complex currently consists of a longwall, two continuous miner sections and a loadout facility. We ship most of the coal raw to our customers via the Union Pacific railroad. In 2010, we finished constructing a new coal preparation plant with supporting coal handling facilities at the West Elk mine site. The loadout facility can load an 11,000-ton train in less than three hours.

**Central Appalachia**

*Coal-Mac.* Coal-Mac is a surface and underground mining complex located on approximately 46,800 acres in Logan and Mingo Counties, West Virginia. Surface mining operations at the Coal-Mac mining complex extract steam coal primarily from the Coalburg and Stockton seams. Underground mining operations at the Coal-Mac mining complex extract steam coal from the Coalburg seam. The Coal-Mac mining complex shipped 3.2 million tons of coal in 2010.

We control a significant portion of the coal reserves through private leases. The Coal-Mac mining complex had approximately 33.5 million tons of proven and probable reserves at December 31, 2010. Without the addition of more coal reserves, the current reserves will sustain current production levels until 2020 before annual output starts to significantly decline.

The complex currently consists of one captive surface mine, one contract underground mine, a preparation plant and two loadout facilities, which we refer to as Holden 22 and Ragland. We ship coal trucked to the Ragland loadout facility directly to our customers via the Norfolk Southern railroad. The Ragland loadout facility can load a 12,000-ton train in less than four hours. We ship coal trucked to the Holden 22 loadout facility directly to our customers via the CSX railroad. We wash all of the coal transported to the Holden 22 loadout facility at an adjacent 600-ton-per-hour preparation plant. The Holden 22 loadout facility can load a 10,000-ton train in about four hours.

*Cumberland River.* Cumberland River is an underground and surface mining complex located on approximately 19,940 acres in Wise County, Virginia and Letcher County, Kentucky. Surface mining operations at the Cumberland River mining complex extract steam coal from approximately 20 different coal seams from the Imboden seam to the High Splint No. 14 seam. Underground mining operations at the Cumberland River mining complex extract steam and metallurgical coal from the Imboden, Taggart Marker, Middle Taggart, Upper Taggart, Owl, and Parsons seams. The Cumberland River mining complex shipped 1.5 million tons of coal in 2010.

We control a significant portion of the coal reserves through private leases. The Cumberland River mining complex had approximately 29.9 million tons of proven and probable reserves at December 31, 2010. Without the addition of more coal reserves, the current reserves will sustain current production levels until 2017 before annual output starts to significantly decline.

The complex currently consists of seven underground mines (three captive, four contract) operating seven continuous miner sections, one captive surface operation, one captive highwall miner, a preparation plant and a loadout facility. We ship approximately one-third of the coal raw. We process the remaining two-thirds of the

**Table of Contents**

coal through a 750-ton-per-hour preparation plant before shipping it to our customers via the Norfolk Southern railroad. The loadout facility can load a 12,500-ton train in less than four hours.

*Lone Mountain.* Lone Mountain is an underground mining complex located on approximately 22,000 acres in Harlan County, Kentucky and Lee County, Virginia. The Lone Mountain mining complex extracts steam and metallurgical coal from the Kellioka, Darby and Owl seams. The Lone Mountain mining complex shipped 2.1 million tons of coal in 2010.

We control a significant portion of the coal reserves through private leases. The Lone Mountain mining complex had approximately 30.5 million tons of proven and probable reserves at December 31, 2010. Without the addition of more coal reserves, the current reserves will sustain current production levels until 2020 before annual output starts to significantly decline.

The complex currently consists of three underground mines operating a total of seven continuous miner sections. We convey coal mined in Kentucky to Virginia before we process it through a 1,200-ton-per-hour preparation plant. We then ship the coal to our customers via the Norfolk Southern or CSX railroad. The loadout facility can load a 12,500-ton unit train in less than four hours.

*Mountain Laurel.* Mountain Laurel is an underground and surface mining complex located on approximately 38,280 acres in Logan County, West Virginia. Underground mining operations at the Mountain Laurel mining complex extract steam and metallurgical coal from the Cedar Grove and Alma seams. Surface mining operations at the Mountain Laurel mining complex extract coal from a number of different splits of the Five Block, Stockton and Coalburg seams. The Mountain Laurel mining complex shipped 5.1 million tons of coal in 2010.

We control a significant portion of the coal reserves through private leases. The Mountain Laurel mining complex had approximately 80.9 million tons of proven and probable reserves at December 31, 2010. The longwall mine is expected to operate through at least 2017 and potentially longer. In addition, the existing reserve base should support continuous miner operations for many years beyond that date.

The complex currently consists of one underground mine operating a longwall and a total of five continuous miner sections, two contract surface operations, a preparation plant and a loadout facility. We process most of the coal through a 2,100-ton-per-hour preparation plant before shipping the coal to our customers via the CSX railroad. The loadout facility can load a 15,000-ton train in less than four hours.

**Sales, Marketing and Trading**

*Overview.* Coal prices are influenced by a number of factors and vary materially by region. As a result of these regional characteristics, prices of coal by product type within a given major coal producing region tend to be relatively consistent with each other. The price of coal within a region is influenced by market conditions, coal quality, transportation costs involved in moving coal from the mine to the point of use and mine operating costs. For example, higher carbon and lower ash content generally result in higher prices, and higher sulfur and higher ash content generally result in lower prices within a given geographic region.

The cost of coal at the mine is also influenced by geologic characteristics such as seam thickness, overburden ratios and depth of underground reserves. It is generally cheaper to mine coal seams that are thick and located close to the surface than to mine thin underground seams. Within a particular geographic region, underground mining, which is the primary mining method we use in the Western Bituminous region and for certain of our Central Appalachia mines, is generally more expensive than surface mining, which is the mining method we use in the Powder River Basin, and for certain of our Central Appalachia mines and a Western Bituminous mine. This is the case because of the higher

## Edgar Filing: ARCH COAL INC - Form 10-K

capital costs, including costs for construction of extensive ventilation systems, and higher per unit labor costs due to lower productivity associated with underground mining.

Our sales, marketing and trading functions are principally based in St. Louis, Missouri and consist of sales and trading personnel, transportation and distribution personnel, quality control personnel and contract administration personnel as well as revenue management. In addition to selling coal produced in our mining

**Table of Contents**

complexes, from time to time we purchase and sell coal mined by others, some of which we blend with coal produced from our mines. We focus on meeting the needs and specifications of our customers rather than just selling our coal production.

*Customers.* In 2010, we sold coal to domestic customers located in 39 different states. The majority of those customers operate power plants, steel mills and industrial facilities located throughout the United States. The locations of our mines enable us to ship coal to most of the major coal-fueled power plants in the United States. For the year ended December 31, 2010, we derived approximately 20% of our total coal revenues from sales to our three largest customers – Tennessee Valley Authority, Ameren Corporation and Tuco – and approximately 40% of our total coal revenues from sales to our 10 largest customers. During 2010, we also exported coal to customers located throughout countries in North America, Europe, South America, and Asia. Coal sales revenue from export sales approximated \$471.5 million for 2010, \$194.4 million for 2009 and \$486.1 million for 2008. We do not have foreign currency exposure for our international sales as all sales are denominated and settled in U.S. dollars.

### **Long-Term Coal Supply Arrangements**

As is customary in the coal industry, we enter into fixed price, fixed volume long-term supply contracts, the terms of which are more than one year, with many of our customers. Multiple year contracts usually have specific and possibly different volume and pricing arrangements for each year of the contract. Long-term contracts allow customers to secure a supply for their future needs and provide us with greater predictability of sales volume and sales prices. In 2010, we sold approximately 77% of our coal under long-term supply arrangements. The majority of our supply contracts include a fixed price for the term of the agreement or a pre-determined escalation in price for each year. Some of our long-term supply agreements may include a variable pricing system. While most of our sales contracts are for terms of one to five years, some are as short as one month and other contracts have terms up to 7 years. At December 31, 2010, the average volume-weighted remaining term of our long-term contracts was approximately 2.57 years, with remaining terms ranging from one to seven years. At December 31, 2010, remaining tons under long-term supply agreements, including those subject to price re-opener or extension provisions, were approximately 255 million tons.

We typically sell coal to customers under long-term arrangements through a request-for-proposal process. The terms of our coal sales agreements result from competitive bidding and negotiations with customers. Consequently, the terms of these contracts vary by customer, including base price adjustment features, price re-opener terms, coal quality requirements, quantity parameters, permitted sources of supply, future regulatory changes, extension options, *force majeure*, termination, damages and assignment provisions. Our long-term supply contracts typically contain provisions to adjust the base price due to new statutes, ordinances or regulations, such as the Mine Improvement and New Emergency Response Act of 2006, which we refer to as the MINER Act, that affect our costs related to performance of the agreement. Additionally, some of our contracts contain provisions that allow for the recovery of costs affected by modifications or changes in the interpretations or application of any applicable statute by local, state or federal government authorities. These provisions only apply to the base price of coal contained in these supply contracts. In some circumstances, a significant adjustment in base price can lead to termination of the contract.

Certain of our contracts contain index provisions that change the price based on changes in market based indices and or changes in economic indices. Certain of our contracts contain price re-opener provisions that may allow a party to commence a renegotiation of the contract price at a pre-determined time. Price re-opener provisions may automatically set a new price based on prevailing market price or, in some instances, require us to negotiate a new price, sometimes within a specified range of prices. In a limited number of agreements, if the parties do not agree on a new price, either party has an option to terminate the contract. Under some of our contracts, we have the right to match lower prices offered to our customers by other suppliers. In addition, certain of our contracts contain clauses that may allow customers to terminate the contract in the event of certain changes in environmental laws and

regulations that impact their operations.

Coal quality and volumes are stipulated in coal sales agreements. In most cases, the annual pricing and volume obligations are fixed, although in some cases the volume specified may vary depending on the customer

Table of Contents

consumption requirements. Most of our coal sales agreements contain provisions requiring us to deliver coal within certain ranges for specific coal characteristics such as heat content, sulfur, ash and moisture content as well as others. Failure to meet these specifications can result in economic penalties, suspension or cancellation of shipments or termination of the contracts.

Our coal sales agreements also typically contain *force majeure* provisions allowing temporary suspension of performance by us or our customers, during the duration of events beyond the control of the affected party, including events such as strikes, adverse mining conditions, mine closures or serious transportation problems that affect us or unanticipated plant outages that may affect the buyer. Our contracts also generally provide that in the event a *force majeure* circumstance exceeds a certain time period, the unaffected party may have the option to terminate the purchase or sale in whole or in part. Some contracts stipulate that this tonnage can be made up by mutual agreement or at the discretion of the buyer. Agreements between our customers and the railroads servicing our mines may also contain *force majeure* provisions. Generally, our coal sales agreements allow our customer to suspend performance in the event that the railroad fails to provide its services due to circumstances that would constitute a *force majeure*.

In most of our contracts, we have a right of substitution (unilateral or subject to counterparty approval), allowing us to provide coal from different mines, including third-party mines, as long as the replacement coal meets quality specifications and will be sold at the same equivalent delivered cost.

In some of our coal supply contracts, we agree to indemnify or reimburse our customers for damage to their or their rail carrier's equipment while on our property, which result from our or our agents' negligence, and for damage to our customer's equipment due to non-coal materials being included with our coal while on our property.

*Trading.* In addition to marketing and selling coal to customers through traditional coal supply arrangements, we seek to optimize our coal production and leverage our knowledge of the coal industry through a variety of other marketing, trading and asset optimization strategies. From time to time, we may employ strategies to use coal and coal-related commodities and contracts for those commodities in order to manage and hedge volumes and/or prices associated with our coal sales or purchase commitments, reduce our exposure to the volatility of market prices or augment the value of our portfolio of traditional assets. These strategies may include physical coal contracts, as well as a variety of forward, futures or options contracts, swap agreements or other financial instruments.

We maintain a system of complementary processes and controls designed to monitor and manage our exposure to market and other risks that may arise as a consequence of these strategies. These processes and controls seek to preserve our ability to profit from certain marketing, trading and asset optimization strategies while mitigating our exposure to potential losses. You should see the section entitled "Quantitative and Qualitative Disclosures About Market Risk" for more information about the market risks associated with these strategies at December 31, 2010.

*Transportation.* We ship our coal to domestic customers by means of railcars, barges, vessels or trucks, or a combination of these means of transportation. We generally sell coal used for domestic consumption free on board (f.o.b.) at the mine or nearest loading facility. Our domestic customers normally bear the costs of transporting coal by rail, barge or vessel.

Historically, most domestic electricity generators have arranged long-term shipping contracts with rail or barge companies to assure stable delivery costs. Transportation can be a large component of a purchaser's total cost. Although the purchaser pays the freight, transportation costs still are important to coal mining companies because the purchaser may choose a supplier largely based on cost of transportation. Transportation costs borne by the customer vary greatly based on each customer's proximity to the mine and our proximity to the loadout facilities. Trucks and overland conveyors haul coal over shorter distances, while barges, Great Lake carriers and ocean vessels move coal to export markets and domestic markets requiring shipment over the Great Lakes and several river systems.



**Table of Contents**

Most coal mines are served by a single rail company, but much of the Powder River Basin is served by two rail carriers: the Burlington Northern-Santa Fe railroad and the Union Pacific railroad. In the Western Bituminous region our customers are largely served by the Union Pacific railroad or by truck delivery. We generally transport coal produced at our Central Appalachian mining complexes via the CSX railroad or the Norfolk Southern railroad. Besides rail deliveries, some customers in the eastern United States rely on a river barge system. Our Arch Coal Terminal is located in Catlettsburg, Kentucky on a 111-acre site on the Big Sandy River above its confluence with the Ohio River. The terminal provides coal and other bulk material storage and can load and offload river barges and trucks at the facility. The terminal can provide up to 500,000 tons of storage and can load up to six million tons of coal annually for shipment on the inland waterways.

We generally sell coal to international customers at the export terminal, and we are usually responsible for the cost of transporting coal to the export terminals. We transport our coal to Atlantic or Pacific coast terminals or terminals along the Gulf of Mexico for transportation to international customers. Our international customers are generally responsible for paying the cost of ocean freight. We may also sell coal to international customers delivered to an unloading facility at the destination country.

We own a 22% interest in Dominion Terminal Associates, a partnership that operates a ground storage-to-vessel coal transloading facility in Newport News, Virginia. The facility has a rated throughput capacity of 20 million tons of coal per year and ground storage capacity of approximately 1.7 million tons. The facility serves international customers, as well as domestic coal users located along the Atlantic coast of the United States.

We recently acquired a 38% interest in Millennium Bulk Terminals Longview, LLC (MBT), the owner of a bulk commodity terminal on the Columbia River near Longview, Washington. MBT is currently working to obtain the required approvals and necessary permits to complete dredging and other upgrades to enable coal, alumina and cementitious material shipments through the brownfield terminal. As currently proposed, the facility will handle the loading of 5 million tons of coal per year.

**Competition**

The coal industry is intensely competitive. The most important factors on which we compete are coal quality, delivered costs to the customer and reliability of supply. Our principal domestic competitors include Alpha Natural Resources, Inc., Cloud Peak Energy, CONSOL Energy Inc., Massey Energy Company, Patriot Coal Corporation, and Peabody Energy Corp. Some of these coal producers are larger than we are and have greater financial resources and larger reserve bases than we do. We also compete directly with a number of smaller producers in each of the geographic regions in which we operate. As the price of domestic coal increases, we also compete with companies that produce coal from one or more foreign countries, such as Colombia, Indonesia and Venezuela.

Additionally, coal competes with other fuels, such as natural gas, nuclear energy, hydropower, wind, solar and petroleum, for steam and electrical power generation. Costs and other factors relating to these alternative fuels, such as safety and environmental considerations, affect the overall demand for coal as a fuel.

**Suppliers**

Principal supplies used in our business include petroleum-based fuels, explosives, tires, steel and other raw materials as well as spare parts and other consumables used in the mining process. We use third-party suppliers for a significant portion of our equipment rebuilds and repairs, drilling services and construction. We use sole source suppliers for certain parts of our business such as explosives and fuel, and preferred suppliers for other parts at our business such as dragline and shovel parts and related services. We believe adequate substitute suppliers are available. For more information about our suppliers, you should see Risk Factors Increases in the costs of mining and other industrial

**Edgar Filing: ARCH COAL INC - Form 10-K**

supplies, including steel-based supplies, diesel fuel and rubber tires, or the inability to obtain a sufficient quantity of those supplies, could negatively affect our operating costs or disrupt or delay our production.

**Table of Contents**

**Environmental and Other Regulatory Matters.**

Federal, state and local authorities regulate the U.S. coal mining industry with respect to matters such as employee health and safety and the environment, including protection of air quality, water quality, wetlands, special status species of plants and animals, land uses, cultural and historic properties and other environmental resources identified during the permitting process. Reclamation is required during production and after mining has been completed. Materials used and generated by mining operations must also be managed according to applicable regulations and law. These laws have, and will continue to have, a significant effect on our production costs and our competitive position.

We endeavor to conduct our mining operations in compliance with all applicable federal, state and local laws and regulations. However, due in part to the extensive and comprehensive regulatory requirements, violations during mining operations occur from time to time. We cannot assure you that we have been or will be at all times in complete compliance with such laws and regulations. While it is not possible to accurately quantify the expenditures we incur to maintain compliance with all applicable federal and state laws, those costs have been and are expected to continue to be significant. Federal and state mining laws and regulations require us to obtain surety bonds to guarantee performance or payment of certain long-term obligations, including mine closure and reclamation costs, federal and state workers' compensation benefits, coal leases and other miscellaneous obligations. Compliance with these laws has substantially increased the cost of coal mining for domestic coal producers.

Future laws, regulations or orders, as well as future interpretations and more rigorous enforcement of existing laws, regulations or orders, may require substantial increases in equipment and operating costs and delays, interruptions or a termination of operations, the extent to which we cannot predict. Future laws, regulations or orders may also cause coal to become a less attractive fuel source, thereby reducing coal's share of the market for fuels and other energy sources used to generate electricity. As a result, future laws, regulations or orders may adversely affect our mining operations, cost structure or our customers' demand for coal.

The following is a summary of the various federal and state environmental and similar regulations that have a material impact on our business:

***Mining Permits and Approvals.*** Numerous governmental permits or approvals are required for mining operations. When we apply for these permits and approvals, we may be required to prepare and present to federal, state or local authorities data pertaining to the effect or impact that any proposed production or processing of coal may have upon the environment. For example, in order to obtain a federal coal lease, an environmental impact statement must be prepared to assist the BLM in determining the potential environmental impact of lease issuance, including any collateral effects from the mining, transportation and burning of coal. The authorization, permitting and implementation requirements imposed by federal, state and local authorities may be costly and time consuming and may delay commencement or continuation of mining operations. In the states where we operate, the applicable laws and regulations also provide that a mining permit or modification can be delayed, refused or revoked if officers, directors, shareholders with specified interests or certain other affiliated entities with specified interests in the applicant or permittee have, or are affiliated with another entity that has, outstanding permit violations. Thus, past or ongoing violations of applicable laws and regulations could provide a basis to revoke existing permits and to deny the issuance of additional permits.

In order to obtain mining permits and approvals from federal and state regulatory authorities, mine operators must submit a reclamation plan for restoring, upon the completion of mining operations, the mined property to its prior condition or other authorized use. Typically, we submit the necessary permit applications several months or even years before we plan to begin mining a new area. Some of our required permits are becoming increasingly more difficult and expensive to obtain, and the application review processes are taking longer to complete and becoming increasingly subject to challenge, even after a permit has been issued.

Under some circumstances, substantial fines and penalties, including revocation or suspension of mining permits, may be imposed under the laws described above. Monetary sanctions and, in severe circumstances, criminal sanctions may be imposed for failure to comply with these laws.

**Table of Contents**

*Surface Mining Control and Reclamation Act.* The Surface Mining Control and Reclamation Act, which we refer to as SMCRA, establishes mining, environmental protection, reclamation and closure standards for all aspects of surface mining as well as many aspects of underground mining. Mining operators must obtain SMCRA permits and permit renewals from the Office of Surface Mining, which we refer to as OSM, or from the applicable state agency if the state agency has obtained regulatory primacy. A state agency may achieve primacy if the state regulatory agency develops a mining regulatory program that is no less stringent than the federal mining regulatory program under SMCRA. All states in which we conduct mining operations have achieved primacy and issue permits in lieu of OSM.

In 1999, a federal court in West Virginia ruled that the stream buffer zone rule issued under SMCRA prohibited most excess spoil fills. While the decision was later reversed on jurisdictional grounds, the extent to which the rule applied to fills was left unaddressed. On December 12, 2008, OSM finalized a rulemaking regarding the interpretation of the stream buffer zone provisions of SMCRA which confirmed that excess spoil from mining and refuse from coal preparation could be placed in permitted areas of a mine site that constitute waters of the United States. On November 30, 2009, OSM announced that it would re-examine and reinterpret the regulations finalized eleven months earlier. We cannot predict how the regulations may change or how they may affect coal production, though there are reports that drafts of OSM's preferred alternative rule would, if finalized, curtail surface mining operations in and near streams especially in central Appalachia.

SMCRA permit provisions include a complex set of requirements which include, among other things, coal prospecting; mine plan development; topsoil or growth medium removal and replacement; selective handling of overburden materials; mine pit backfilling and grading; disposal of excess spoil; protection of the hydrologic balance; subsidence control for underground mines; surface runoff and drainage control; establishment of suitable post mining land uses; and revegetation. We begin the process of preparing a mining permit application by collecting baseline data to adequately characterize the pre-mining environmental conditions of the permit area. This work is typically conducted by third-party consultants with specialized expertise and includes surveys and/or assessments of the following: cultural and historical resources; geology; soils; vegetation; aquatic organisms; wildlife; potential for threatened, endangered or other special status species; surface and ground water hydrology; climatology; riverine and riparian habitat; and wetlands. The geologic data and information derived from the other surveys and/or assessments are used to develop the mining and reclamation plans presented in the permit application. The mining and reclamation plans address the provisions and performance standards of the state's equivalent SMCRA regulatory program, and are also used to support applications for other authorizations and/or permits required to conduct coal mining activities. Also included in the permit application is information used for documenting surface and mineral ownership, variance requests, access roads, bonding information, mining methods, mining phases, other agreements that may relate to coal, other minerals, oil and gas rights, water rights, permitted areas, and ownership and control information required to determine compliance with OSM's Applicant Violator System, including the mining and compliance history of officers, directors and principal owners of the entity.

Once a permit application is prepared and submitted to the regulatory agency, it goes through an administrative completeness review and a thorough technical review. Also, before a SMCRA permit is issued, a mine operator must submit a bond or otherwise secure the performance of all reclamation obligations. After the application is submitted, a public notice or advertisement of the proposed permit is required to be given, which begins a notice period that is followed by a public comment period before a permit can be issued. It is not uncommon for a SMCRA mine permit application to take over a year to prepare, depending on the size and complexity of the mine, and anywhere from six months to two years or even longer for the permit to be issued. The variability in time frame required to prepare the application and issue the permit can be attributed primarily to the various regulatory authorities' discretion in the handling of comments and objections relating to the project received from the general public and other agencies. Also, it is not uncommon for a permit to be delayed as a result of litigation related to the specific permit or another related company's permit.

## Edgar Filing: ARCH COAL INC - Form 10-K

In addition to the bond requirement for an active or proposed permit, the Abandoned Mine Land Fund, which was created by SMCRA, requires a fee on all coal produced. The proceeds of the fee are used to restore mines closed or abandoned prior to SMCRA's adoption in 1977. The current fee is \$0.315 per ton of coal

**Table of Contents**

produced from surface mines and \$0.135 per ton of coal produced from underground mines. In 2010, we recorded \$44.2 million of expense related to these reclamation fees.

***Surety Bonds.*** Mine operators are often required by federal and/or state laws, including SMCRA, to assure, usually through the use of surety bonds, payment of certain long-term obligations including mine closure or reclamation costs, federal and state workers' compensation costs, coal leases and other miscellaneous obligations. Although surety bonds are usually noncancelable during their term, many of these bonds are renewable on an annual basis.

The costs of these bonds have fluctuated in recent years while the market terms of surety bonds have generally become more unfavorable to mine operators. These changes in the terms of the bonds have been accompanied at times by a decrease in the number of companies willing to issue surety bonds. In order to address some of these uncertainties, we use self-bonding to secure performance of certain obligations in Wyoming. As of December 31, 2010, we have self-bonded an aggregate of approximately \$406.2 million and have posted an aggregate of approximately \$213.6 million in surety bonds for reclamation purposes. In addition, we had approximately \$153.6 million of surety bonds and letters of credit outstanding at December 31, 2010 to secure workers' compensation, coal lease and other obligations.

***Mine Safety and Health.*** Stringent safety and health standards have been imposed by federal legislation since Congress adopted the Mine Safety and Health Act of 1969. The Mine Safety and Health Act of 1977 significantly expanded the enforcement of safety and health standards and imposed comprehensive safety and health standards on all aspects of mining operations. In addition to federal regulatory programs, all of the states in which we operate also have programs aimed at improving mine safety and health. Collectively, federal and state safety and health regulation in the coal mining industry is among the most comprehensive and pervasive systems for the protection of employee health and safety affecting any segment of U.S. industry. In reaction to recent mine accidents, federal and state legislatures and regulatory authorities have increased scrutiny of mine safety matters and passed more stringent laws governing mining. For example, in 2006, Congress enacted the MINER Act. The MINER Act imposes additional obligations on coal operators including, among other things, the following:

development of new emergency response plans that address post-accident communications, tracking of miners, breathable air, lifelines, training and communication with local emergency response personnel;

establishment of additional requirements for mine rescue teams;

notification of federal authorities in the event of certain events;

increased penalties for violations of the applicable federal laws and regulations; and

requirement that standards be implemented regarding the manner in which closed areas of underground mines are sealed.

In 2008, the U.S. House of Representatives approved additional federal legislation which would have required new regulations on a variety of mine safety issues such as underground refuges, mine ventilation and communication systems. Although the U.S. Senate failed to pass that legislation, it is possible that similar legislation may be proposed in the future. Various states, including West Virginia, have also enacted new laws to address many of the same subjects. The costs of implementing these new safety and health regulations at the federal and state level have been, and will continue to be, substantial. In addition to the cost of implementation, there are increased penalties for violations which may also be substantial. Expanded enforcement has resulted in a proliferation of litigation regarding citations and orders issued as a result of the regulations.

## Edgar Filing: ARCH COAL INC - Form 10-K

Under the Black Lung Benefits Revenue Act of 1977 and the Black Lung Benefits Reform Act of 1977, each coal mine operator must secure payment of federal black lung benefits to claimants who are current and former employees and to a trust fund for the payment of benefits and medical expenses to claimants who last worked in the coal industry prior to July 1, 1973. The trust fund is funded by an excise tax on production of up to \$1.10 per ton for coal mined in underground operations and up to \$0.55 per ton for coal mined in surface

Table of Contents

operations. These amounts may not exceed 4.4% of the gross sales price. This excise tax does not apply to coal shipped outside the United States. In 2010, we recorded \$80.6 million of expense related to this excise tax.

We are committed to the safety of our employees. In 2010 we spent approximately \$15.6 million on MINER Act compliance and other safety improvement matters. In addition, we are currently finalizing the installation and testing of a new \$14 million two-way communication and tracking system in our underground mines. The installation and testing of this system is expected to be completed in June 2011.

Arch's 2010 safety performance once again set a new record, surpassing our 2009 record year. Our lost-time incident rate was 0.46 incidents per 200,000 hours worked, a 35% improvement over 2009. In addition, we were honored with a national Sentinels of Safety certificate from the U.S. Department of Labor and eight state awards for outstanding safety practices in 2010.

One way we work towards meeting a zero injury rate is developing and maintaining strong safety programs. Our subsidiaries launched behavior-based safety programs in 2006, which expanded our employees' involvement in our prevention process and in identifying at-risk behaviors before incidents occur. Since adopting these programs, our rates for total incidents and lost-time incidents have improved by approximately 57% and 63%, respectively. In addition, we routinely conduct regular safety drills and exercises with state safety and MSHA officials.

*Clean Air Act.* The federal Clean Air Act and similar state and local laws that regulate air emissions affect coal mining directly and indirectly. Direct impacts on coal mining and processing operations include Clean Air Act permitting requirements and emissions control requirements relating to particulate matter which may include controlling fugitive dust. The Clean Air Act also indirectly affects coal mining operations by extensively regulating the emissions of fine particulate matter measuring 2.5 micrometers in diameter or smaller, sulfur dioxide, nitrogen oxides, mercury and other compounds emitted by coal-fueled power plants and industrial boilers, which are the largest end-users of our coal. Continued tightening of the already stringent regulation of emissions is likely, such as EPA's June 22, 2010, (75 Fed Reg 35520) revision of the national ambient air quality standard for sulfur dioxide and a similar proposal announced on January 6, 2010 for ozone that is now expected to be finalized in July of 2011. Regulation of additional emissions such as carbon dioxide or other greenhouse gases as proposed or determined by EPA on October 27, October 30 and December 15, 2009 may eventually be applied to stationary sources such as coal-fueled power plants and industrial boilers (see discussion of Climate Change, below). This application could eventually reduce the demand for coal.

Clean Air Act requirements that may directly or indirectly affect our operations include the following:

*Acid Rain.* Title IV of the Clean Air Act, promulgated in 1990, imposed a two-phase reduction of sulfur dioxide emissions by electric utilities. Phase II became effective in 2000 and applies to all coal-fueled power plants with a capacity of more than 25-megawatts. Generally, the affected power plants have sought to comply with these requirements by switching to lower sulfur fuels, installing pollution control devices, reducing electricity generating levels or purchasing or trading sulfur dioxide emissions allowances. Although we cannot accurately predict the future effect of this Clean Air Act provision on our operations, we believe that implementation of Phase II has been factored into the pricing of the coal market.

*Particulate Matter.* The Clean Air Act requires the U.S. Environmental Protection Agency, which we refer to as EPA, to set national ambient air quality standards, which we refer to as NAAQS, for certain pollutants associated with the combustion of coal, including sulfur dioxide, particulate matter, nitrogen oxides and ozone. Areas that are not in compliance with these standards, referred to as non-attainment areas, must take steps to reduce emissions levels. For example, NAAQS currently exist for particulate matter measuring 10 micrometers in diameter or smaller (PM10) and for fine particulate matter measuring 2.5 micrometers in diameter or smaller

## Edgar Filing: ARCH COAL INC - Form 10-K

(PM2.5). The EPA designated all or part of 225 counties in 20 states as well as the District of Columbia as non-attainment areas with respect to the PM2.5 NAAQS. Those designations have been challenged. Individual states must identify the sources of emissions and develop emission reduction plans. These plans may be state-specific or regional in scope. Under the Clean Air Act, individual states have up to 12 years from the date of designation to secure emissions reductions from sources contributing to the problem. In addition, EPA has announced that it intends to propose a revision to the PM2.5 NAAQS in February of 2011 with a final regulation being

Table of Contents

promulgated in October of 2011. Future regulation and enforcement of the new PM2.5 standard will affect many power plants, especially coal-fueled power plants, and all plants in non-attainment areas.

*Ozone.* Significant additional emission control expenditures will be required at coal-fueled power plants to meet the new NAAQS for ozone. Nitrogen oxides, which are a byproduct of coal combustion, are classified as an ozone precursor. As a result, emissions control requirements for new and expanded coal-fueled power plants and industrial boilers will continue to become more demanding in the years ahead. For example, on March 27, 2008, EPA promulgated a new 75 parts per billion (ppb) ozone primary NAAQS. On September 16, 2009, EPA announced that it will reconsider the new standard, and on January 19, 2010, EPA proposed its reconsidered NAAQS (75 Fed Reg 2938), proposing to adopt a new, more stringent primary ambient air quality standard for ozone and to change the way in which the secondary standard is calculated. Should these NAAQS withstand scrutiny, additional emission control expenditures will likely be required at coal-fueled power plants.

*NOx SIP Call.* The NOx SIP Call program was established by the EPA in October 1998 to reduce the transport of ozone on prevailing winds from the Midwest and South to states in the Northeast, which said that they could not meet federal air quality standards because of migrating pollution. The program was designed to reduce nitrous oxide emissions by one million tons per year in 22 eastern states and the District of Columbia. Phase II reductions were required by May 2007. As a result of the program, many power plants have been or will be required to install additional emission control measures, such as selective catalytic reduction devices. Installation of additional emission control measures will make it more costly to operate coal-fueled power plants, which could make coal a less attractive fuel.

*Clean Air Interstate Rule.* The EPA finalized the Clean Air Interstate Rule, which we refer to as CAIR, in March 2005. CAIR calls for power plants in 28 eastern states and the District of Columbia to reduce emission levels of sulfur dioxide and nitrous oxide pursuant to a cap and trade program similar to the system now in effect for acid deposition control and to that proposed by the Clean Skies Initiative. The stringency of the cap may require some coal-fueled power plants to install additional pollution control equipment, such as wet scrubbers, which could decrease the demand for low-sulfur coal at these plants and thereby potentially reduce market prices for low-sulfur coal. Emissions are permanently capped and cannot increase. In July 2008, in *State of North Carolina v. EPA* and consolidated cases, the U.S. Court of Appeals for the District of Columbia Circuit disagreed with the EPA's reading of the Clean Air Act and vacated CAIR in its entirety. In December 2008, the U.S. Court of Appeals for the District of Columbia Circuit revised its remedy and remanded the rule to the EPA. EPA proposed a revised transport rule on August 2, 2010, (75 Fed Reg 45209) and received thousands of comments on the proposal. The rule making is expected to be finalized in July of 2011 and it is possible that additional power plant controls may be required under the replacement rule, which may affect the market for coal.

*Mercury.* In February 2008, the U.S. Court of Appeals for the District of Columbia Circuit vacated the EPA's Clean Air Mercury Rule, which we refer to as CAMR, and remanded it to the EPA for reconsideration. The EPA is reviewing the court decision and evaluating its impacts. Before the court decision, some states had either adopted CAMR or adopted state-specific rules to regulate mercury emissions from power plants that are more stringent than CAMR. CAMR, as promulgated, would have permanently capped and reduced mercury emissions from coal-fueled power plants by establishing mercury emissions limits from new and existing coal-fueled power plants and creating a market-based cap-and-trade program that was expected to reduce nationwide emissions of mercury in two phases. Under CAMR, coal-fueled power plants would have had until 2010 to cut mercury emission levels from 48 tons to 38 tons a year and until 2018 to bring that level down to 15 tons, a 69% reduction. On December 24, 2009, the EPA announced that it had recommended to the Office of Management and Budget an Information Collection Request that would require all US power plants with coal or oil-fired generating units to submit emissions information. With this information the EPA intends to

Edgar Filing: ARCH COAL INC - Form 10-K

propose standards for all air toxic emissions, including mercury, for coal and oil-fired units by March 10, 2011. The EPA hopes to make these new standards final by November 16, 2011. Regardless of how the EPA responds on reconsideration or how states implement their state-specific mercury rules, rules imposing

**Table of Contents**

stricter limitations on mercury emissions from power plants will likely be promulgated and implemented. Any such rules may adversely affect the demand for coal.

*Regional Haze.* The EPA has initiated a regional haze program designed to protect and improve visibility at and around national parks, national wilderness areas and international parks, particularly those located in the southwest and southeast United States. Under the Regional Haze Rule, affected states were required to submit regional haze SIPs by December 17, 2007, that, among other things, was to identify facilities that would have to reduce emissions and comply with stricter emission limitations. The vast majority of states failed to submit their plans by December 17, 2007, and EPA issued a Finding of Failure to Submit plans on January 15, 2009 (74 Fed. Reg. 2392), which could trigger Federal implementation plans. EPA has taken no enforcement action against states to finalize implementation plans. Nonetheless, this program may result in additional emissions restrictions from new coal-fueled power plants whose operations may impair visibility at and around federally protected areas. This program may also require certain existing coal-fueled power plants to install additional control measures designed to limit haze-causing emissions, such as sulfur dioxide, nitrogen oxides, volatile organic chemicals and particulate matter. These limitations could affect the future market for coal.

*New Source Review.* A number of pending regulatory changes and court actions are affecting the scope of the EPA's new source review program, which under certain circumstances requires existing coal-fueled power plants to install the more stringent air emissions control equipment required of new plants. The changes to the new source review program may impact demand for coal nationally, but as the final form of the requirements after their revision is not yet known, we are unable to predict the magnitude of the impact.

*Climate Change.* One by-product of burning coal is carbon dioxide, which is considered a greenhouse gas and is a major source of concern with respect to global warming. In November 2004, Russia ratified the Kyoto Protocol to the 1992 Framework Convention on Global Climate Change, which establishes a binding set of emission targets for greenhouse gases. With Russia's acceptance, the Kyoto Protocol became binding on all those countries that had ratified it in February 2005. The United States has refused to ratify the Kyoto Protocol. Although the Kyoto targets varied from country to country, the United States Kyoto Protocol target reductions of greenhouse gas emissions would be to 93% of 1990 levels. Following the Kyoto meeting, multiple Conferences of the Parties have been held. None to date, including the most recent Conference of the Parties in Cancun, Mexico, in late November and early December of 2010, have resulted in any mandatory reduction requirements for the United States, but any such future conference may do so.

Future regulation of greenhouse gases in the United States could occur pursuant to future U.S. treaty obligations, statutory or regulatory changes under the Clean Air Act, federal or state adoption of a greenhouse gas regulatory scheme, or otherwise. The U.S. Congress has considered various proposals to reduce greenhouse gas emissions, but to date, none have become law. In April 2007, the U.S. Supreme Court rendered its decision in Massachusetts v. EPA, finding that the EPA has authority under the Clean Air Act to regulate carbon dioxide emissions from automobiles and can decide against regulation only if the EPA determines that carbon dioxide does not significantly contribute to climate change and does not endanger public health or the environment. On December 15, 2009, EPA published a formal determination that six greenhouse gases, including carbon dioxide and methane, endanger both the public health and welfare of current and future generations. In the same Federal Register rulemaking, EPA found that emission of greenhouse gases from new motor vehicles and their engines contribute to greenhouse gas pollution. Although Massachusetts v. EPA did not involve the EPA's authority to regulate greenhouse gas emissions from stationary sources, such as coal-fueled power plants, the decision is likely to impact regulation of stationary sources.

For example, a challenge in the U.S. Court of Appeals for the District of Columbia with respect to the EPA's decision not to regulate greenhouse gas emissions from power plants and other stationary sources under the Clean Air Act's new source performance standards was remanded to the EPA for further consideration in light of Massachusetts v.

## Edgar Filing: ARCH COAL INC - Form 10-K

EPA. Other pending cases regarding greenhouse gases may affect the market for coal. In AEP v. Connecticut (582 F. 3d, 309, 2d Cir, 2009) the Second Circuit Court of Appeals held that States and private plaintiffs may maintain actions under federal common law alleging that five electric utilities have created a public nuisance by contributing to global warming, and may seek injunctive relief capping the utilities CQ

**Table of Contents**

emissions at judicially-determined levels. However, the Supreme Court granted certiorari (10-174, US) on December 6, 2010, and argument has not yet been scheduled.

On October 27, 2009, the EPA announced how it will establish thresholds for phasing-in and regulating greenhouse gas emissions under various provisions of the Clean Air Act. Three days later, on October 30, 2009, the EPA published a final rule in the Federal Register that requires the reporting of greenhouse gas emissions from all sectors of the American economy, and reporting of emissions from underground coal mines and coal suppliers was promulgated on July 12, 2010 (75 Fed Reg 39736). If as a result of these actions the EPA were to set emission limits for carbon dioxide from electric utilities or steel mills, the demand for coal could decrease.

In the absence of federal legislation or regulation, many states and regions have adopted greenhouse gas initiatives. These state and regional climate change rules will likely require additional controls on coal-fueled power plants and industrial boilers and may even cause some users of coal to switch from coal to a lower carbon fuel. There can be no assurance at this time that a carbon dioxide cap and trade program, a carbon tax or other regulatory regime, if implemented by the states in which our customers operate or at the federal level, will not affect the future market for coal in those regions. The permitting of new coal-fueled power plants has also recently been contested by state regulators and environmental organizations based on concerns relating to greenhouse gas emissions. Increased efforts to control greenhouse gas emissions could result in reduced demand for coal.

We believe that a diverse suite of clean coal technologies represents an essential tool for ultimately stabilizing greenhouse gas concentrations in the atmosphere. As a result, we have invested in several projects seeking to advance a variety of clean coal technologies, and will continue to evaluate additional opportunities for potential investment. We currently own a 24% interest in DKRW Advanced Fuels LLC, which is developing a facility to convert coal into gasoline, while capturing much of the carbon dioxide produced in the conversion process for use in enhanced oil recovery (EOR) applications. In addition, we own a 35% interest in Tenaska Trailblazer Partners, LLC, which is planning to construct a pulverized coal-fueled electric generating station in West Texas targeting a post-combustion capture of 85% – 90% of the carbon dioxide.

*Clean Water Act.* The federal Clean Water Act and corresponding state and local laws and regulations affect coal mining operations by restricting the discharge of pollutants, including dredged and fill materials, into waters of the United States. The Clean Water Act provisions and associated state and federal regulations are complex and subject to amendments, legal challenges and changes in implementation. Recent court decisions and regulatory actions have created uncertainty over Clean Water Act jurisdiction and permitting requirements that could variously increase or decrease the cost and time we expend on Clean Water Act compliance.

Clean Water Act requirements that may directly or indirectly affect our operations include the following:

*Wastewater Discharge.* Section 402 of the Clean Water Act creates a process for establishing effluent limitations for discharges to streams that are protective of water quality standards through the National Pollutant Discharge Elimination System, which we refer to as the NPDES, or an equally stringent program delegated to a state regulatory agency. Regular monitoring, reporting and compliance with performance standards are preconditions for the issuance and renewal of NPDES permits that govern discharges into waters of the United States, especially on selenium, sulfate and specific conductance. Discharges that exceed the limits specified under NPDES permits can lead to the imposition of penalties, and persistent non-compliance could lead to significant penalties, compliance costs and delays in coal production. In addition, the imposition of future restrictions on the discharge of certain pollutants into waters of the United States could increase the difficulty of obtaining and complying with NPDES permits, which could impose additional time and cost burdens on our operations. You should see Item 3 Legal Proceedings for more information about certain regulatory actions pertaining to our operations.

Discharges of pollutants into waters that states have designated as impaired (i.e., as not meeting present water quality standards) are subject to Total Maximum Daily Load, which we refer to as TMDL, regulations. The TMDL regulations establish a process for calculating the maximum amount of a pollutant that a water body can receive while maintaining state water quality standards. Pollutant loads are allocated among the various sources that discharge pollutants into that water body. Mine operations

**Table of Contents**

that discharge into water bodies designated as impaired will be required to meet new TMDL allocations. The adoption of more stringent TMDL-related allocations for our coal mines could require more costly water treatment and could adversely affect our coal production.

The Clean Water Act also requires states to develop anti-degradation policies to ensure that non-impaired water bodies continue to meet water quality standards. The issuance and renewal of permits for the discharge of pollutants to waters that have been designated as high quality are subject to anti-degradation review that may increase the costs, time and difficulty associated with obtaining and complying with NPDES permits.

*Dredge and Fill Permits.* Many mining activities, such as the development of refuse impoundments, fresh water impoundments, refuse fills, valley fills, and other similar structures, may result in impacts to waters of the United States, including wetlands, streams and, in certain instances, man-made conveyances that have a hydrologic connection to such streams or wetlands. Under the Clean Water Act, coal companies are required to obtain a Section 404 permit from the Army Corps of Engineers, which we refer to as the Corps, prior to conducting such mining activities. The Corps is authorized to issue general nationwide permits for specific categories of activities that are similar in nature and that are determined to have minimal adverse effects on the environment. Permits issued pursuant to Nationwide Permit 21, which we refer to as NWP 21, generally authorize the disposal of dredged and fill material from surface coal mining activities into waters of the United States, subject to certain restrictions. Since March 2007, permits under NWP 21 were reissued for a five-year period with new provisions intended to strengthen environmental protections. There must be appropriate mitigation in accordance with nationwide general permit conditions rather than less restricted state-required mitigation requirements, and permitholders must receive explicit authorization from the Corps before proceeding with proposed mining activities.

Notwithstanding the additional environmental protections designed in the 2007 NWP 21, on July 15, 2009, the Corps proposed to immediately suspend the use of the NWP 21 in six Appalachian states, including West Virginia, Kentucky and Virginia where the Company conducts operations. In addition, in the same notice, the Corps proposed to modify the NWP 21 following the receipt and review of public comments to prohibit its further use in the same states during the remaining term of the permit which is March 12, 2012. On June 17, 2010, the Corps announced that it had suspended the use of NWP 21 in the same six states it continues to be available elsewhere. The Corps decision, however, does not prevent the Company's operations from seeking an individual permit under § 404 of the CWA, nor does it restrict an operation from utilizing another version of the nationwide permit authorized for small underground coal mines that must construct fills as part of their mining operations.

The use of nationwide permits to authorize stream impacts from mining activities has been the subject of significant litigation. You should see Item 3 Legal Proceedings for more information about certain litigation pertaining to our permits.

*Resource Conservation and Recovery Act.* The Resource Conservation and Recovery Act, which we refer to as RCRA, may affect coal mining operations through its requirements for the management, handling, transportation and disposal of hazardous wastes. Currently, certain coal mine wastes, such as overburden and coal cleaning wastes, are exempted from hazardous waste management. In addition, Subtitle C of RCRA exempted fossil fuel combustion wastes from hazardous waste regulation until the EPA completed a report to Congress and made a determination on whether the wastes should be regulated as hazardous. In its 1993 regulatory determination, the EPA addressed some high volume-low toxicity coal combustion products generated at electric utility and independent power producing facilities, such as coal ash, and left the exemption in place. In May 2000, the EPA concluded that coal combustion products do not warrant regulation as hazardous waste under RCRA and again retained the hazardous waste exemption for these wastes. The EPA also determined that national non-hazardous waste regulations under RCRA Subtitle D are needed for coal combustion products disposed in surface impoundments and landfills and used as

Edgar Filing: ARCH COAL INC - Form 10-K

mine-fill. In March of 2007 the Office of Surface Mining and EPA proposed regulations regarding the management of coal combustion products. The EPA concluded that beneficial uses of these wastes, other than for mine-filling, pose no significant risk and no additional national regulations are needed. As long as this exemption remains in effect, it is not anticipated that

Table of Contents

regulation of coal combustion waste will have any material effect on the amount of coal used by electricity generators. A final rule has not been promulgated. Most state hazardous waste laws also exempt coal combustion products, and instead treat it as either a solid waste or a special waste. Any costs associated with handling or disposal of hazardous wastes would increase our customers' operating costs and potentially reduce their ability to purchase coal. In addition, contamination caused by the past disposal of ash can lead to material liability. In another development regarding coal combustion wastes, EPA conducted an assessment of impoundments and other units that manage residuals from coal combustion and that contain free liquids following a massive coal ash spill in Tennessee in 2008, EPA contractors conducted site assessments at many impoundments and is requiring appropriate remedial action at any facility that is found to have a unit posing a risk for potential failure. EPA is posting utility responses to the assessment on its web site as the responses are received. Future regulations resulting from the EPA coal combustion refuse assessments may impact the ability of the Company's utility customers to continue to use coal in their power plants.

*Comprehensive Environmental Response, Compensation and Liability Act.* The Comprehensive Environmental Response, Compensation and Liability Act, which we refer to as CERCLA, and similar state laws affect coal mining operations by, among other things, imposing cleanup requirements for threatened or actual releases of hazardous substances that may endanger public health or welfare or the environment. Under CERCLA and similar state laws, joint and several liability may be imposed on waste generators, site owners and lessees and others regardless of fault or the legality of the original disposal activity. Although the EPA excludes most wastes generated by coal mining and processing operations from the hazardous waste laws, such wastes can, in certain circumstances, constitute hazardous substances for the purposes of CERCLA. In addition, the disposal, release or spilling of some products used by coal companies in operations, such as chemicals, could trigger the liability provisions of the statute. Thus, coal mines that we currently own or have previously owned or operated, and sites to which we sent waste materials, may be subject to liability under CERCLA and similar state laws. In particular, we may be liable under CERCLA or similar state laws for the cleanup of hazardous substance contamination at sites where we own surface rights.

*Endangered Species.* The Endangered Species Act and other related federal and state statutes protect species threatened or endangered with possible extinction. Protection of threatened, endangered and other special status species may have the effect of prohibiting or delaying us from obtaining mining permits and may include restrictions on timber harvesting, road building and other mining or agricultural activities in areas containing the affected species. A number of species indigenous to our properties are protected under the Endangered Species Act or other related laws or regulations. Based on the species that have been identified to date and the current application of applicable laws and regulations, however, we do not believe there are any species protected under the Endangered Species Act that would materially and adversely affect our ability to mine coal from our properties in accordance with current mining plans. We have been able to continue our operations within the existing spatial, temporal and other restrictions associated with special status species. Should more stringent protective measures be applied to threatened, endangered or other special status species or to their critical habitat, then we could experience increased operating costs or difficulty in obtaining future mining permits.

*Use of Explosives.* Our surface mining operations are subject to numerous regulations relating to blasting activities. Pursuant to these regulations, we incur costs to design and implement blast schedules and to conduct pre-blast surveys and blast monitoring. In addition, the storage of explosives is subject to strict regulatory requirements established by four different federal regulatory agencies. For example, pursuant to a rule issued by the Department of Homeland Security in 2007, facilities in possession of chemicals of interest, including ammonium nitrate at certain threshold levels, must complete a screening review in order to help determine whether there is a high level of security risk such that a security vulnerability assessment and site security plan will be required.

*Other Environmental Laws.* We are required to comply with numerous other federal, state and local environmental laws in addition to those previously discussed. These additional laws include, for example, the Safe Drinking Water Act, the Toxic Substance Control Act and the Emergency Planning and Community Right-to-Know Act.



**Table of Contents****Employees**

At February 1, 2011, we employed a total of approximately 4,700 full and part-time employees, approximately 280 of whom are represented by the Scotia Employees Association. We believe that our relations with all employees are good.

**Executive Officers**

The following is a list of our executive officers, their ages as of February 22, 2011 and their positions and offices during the last five years:

Name	Age	Position
C. Henry Besten, Jr.	62	Mr. Besten has served as our Senior Vice President-Strategic Development since 2002.
John T. Drexler	41	Mr. Drexler has served as our Senior Vice President and Chief Financial Officer since April 2008. Mr. Drexler served as our Vice President-Finance and Accounting from March 2006 to April 2008. From March 2005 to March 2006, Mr. Drexler served as our Director of Planning and Forecasting. Prior to March 2005, Mr. Drexler held several other positions within our finance and accounting department.
John W. Eaves	53	Mr. Eaves has served as our President and Chief Operating Officer since April 2006. Mr. Eaves has also been a director since February 2006. From 2002 to April 2006, Mr. Eaves served as our Executive Vice President and Chief Operating Officer. Mr. Eaves also serves on the board of directors of ADA-ES, Inc. and CoaLogix.
Sheila B. Feldman	56	Ms. Feldman has served as our Vice President-Human Resources since 2003. From 1997 to 2003, Ms. Feldman was the Vice President-Human Resources and Public Affairs of Solutia Inc.
Robert G. Jones	54	Mr. Jones has served as our Senior Vice President-Law, General Counsel and Secretary since August 2008. Mr. Jones served as Vice President-Law, General Counsel and Secretary from 2000 to August 2008.
Paul A. Lang	50	Mr. Lang has served as our Senior Vice President-Operations since December 2006. Mr. Lang served as President of Western Operations from July 2005 through December 2006 and President and General Manager of Thunder Basin Coal Company, L.L.C. from 1998 through July 2005.
Steven F. Leer	58	Mr. Leer has served as our Chairman and Chief Executive Officer since April 2006. Mr. Leer served as our President and Chief Executive Officer from 1992 to April 2006. Mr. Leer also serves on the board of directors of the Norfolk Southern Corporation, USG Corp., the Business Roundtable, the BRT, the University of the Pacific and Washington University and is past chairman of the Coal Industry Advisory Board. Mr. Leer is a past chairman and continues to serve on the board of directors of the Center for Energy and Economic Development, the National Coal Council and the National Mining Association.
David B. Peugh	56	

## Edgar Filing: ARCH COAL INC - Form 10-K

Deck S. Slone	47	Mr. Peugh has served as our Vice President-Business Development since 1995.
David N. Warnecke	55	Mr. Slone has served as our Vice President-Government, Investor and Public Affairs since August 2008. Mr. Slone served as our Vice President-Investor Relations and Public Affairs from 2001 to August 2008.
		Mr. Warnecke has served as our Vice President-Marketing and Trading since August 2005. From June 2005 until March 2007, Mr. Warnecke served as President of our Arch Coal Sales Company, Inc. subsidiary, and from April 2004 until June 2005, Mr. Warnecke served as Executive Vice President of Arch Coal Sales Company, Inc. Prior to June 2004, Mr. Warnecke was Senior Vice President-Sales, Trading and Transportation of Arch Coal Sales Company, Inc.

**Table of Contents**

**Available Information**

We file annual, quarterly and current reports, and amendments to those reports, proxy statements and other information with the Securities and Exchange Commission. You may access and read our filings without charge through the SEC's website, [at sec.gov](http://sec.gov). You may also read and copy any document we file at the SEC's public reference room located at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room.

We also make the documents listed above available without charge through our website, [archcoal.com](http://archcoal.com), as soon as practicable after we file or furnish them with the SEC. You may also request copies of the documents, at no cost, by telephone at (314) 994-2700 or by mail at Arch Coal, Inc., One CityPlace Drive, Suite 300, St. Louis, Missouri, 63141 Attention: Vice President-Government, Investor and Public Affairs. The information on our website is not part of this Annual Report on Form 10-K.

Table of Contents**GLOSSARY OF SELECTED MINING TERMS**

Certain terms that we use in this document are specific to the coal mining industry and may be technical in nature. The following is a list of selected mining terms and the definitions we attribute to them.

Assigned reserves	Recoverable reserves designated for mining by a specific operation.
Btu	A measure of the energy required to raise the temperature of one pound of water one degree of Fahrenheit.
Compliance coal	Coal which, when burned, emits 1.2 pounds or less of sulfur dioxide per million Btus, requiring no blending or other sulfur dioxide reduction technologies in order to comply with the requirements of the Clean Air Act.
Continuous miner	A machine used in underground mining to cut coal from the seam and load it onto conveyors or into shuttle cars in a continuous operation.
Dragline	A large machine used in surface mining to remove the overburden, or layers of earth and rock, covering a coal seam. The dragline has a large bucket, suspended by cables from the end of a long boom, which is able to scoop up large amounts of overburden as it is dragged across the excavation area and redeposit the overburden in another area.
Longwall mining	One of two major underground coal mining methods, generally employing two rotating drums pulled mechanically back and forth across a long face of coal.
Low-sulfur coal	Coal which, when burned, emits 1.6 pounds or less of sulfur dioxide per million Btus.
Preparation plant	A facility used for crushing, sizing and washing coal to remove impurities and to prepare it for use by a particular customer.
Probable reserves	Reserves for which quantity and grade and/or quality are computed from information similar to that used for proven reserves, but the sites for inspection, sampling and measurement are farther apart or are otherwise less adequately spaced.
Proven reserves	Reserves for which (a) quantity is computed from dimensions revealed in outcrops, trenches, workings or drill holes; grade and/or quality are computed from the results of detailed sampling and (b) the sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are well established.
Reclamation	The restoration of land and environmental values to a mining site after the coal is extracted. The process commonly includes recontouring or shaping the land to its approximate original appearance, restoring topsoil and

Edgar Filing: ARCH COAL INC - Form 10-K

planting native grass and ground covers.

Recoverable reserves

The amount of proven and probable reserves that can actually be recovered from the reserve base taking into account all mining and preparation losses involved in producing a saleable product using existing methods and under current law.

Reserves

That part of a mineral deposit which could be economically and legally extracted or produced at the time of the reserve determination.

Room-and-pillar mining

One of two major underground coal mining methods, utilizing continuous miners creating a network of rooms within a coal seam, leaving behind pillars of coal used to support the roof of a mine.

Unassigned reserves

Recoverable reserves that have not yet been designated for mining by a specific operation.

**Table of Contents**

**ITEM 1A. RISK FACTORS.**

Our business involves certain risks and uncertainties. In addition to the risks and uncertainties described below, we may face other risks and uncertainties, some of which may be unknown to us and some of which we may deem immaterial. If one or more of these risks or uncertainties occur, our business, financial condition or results of operations may be materially and adversely affected.

**Risks Related to Our Business**

***Coal prices are subject to change and a substantial or extended decline in prices could materially and adversely affect our profitability and the value of our coal reserves.***

Our profitability and the value of our coal reserves depend upon the prices we receive for our coal. The contract prices we may receive in the future for coal depend upon factors beyond our control, including the following:

- the domestic and foreign supply and demand for coal;
- the quantity and quality of coal available from competitors;
- competition for production of electricity from non-coal sources, including the price and availability of alternative fuels;
- domestic air emission standards for coal-fueled power plants and the ability of coal-fueled power plants to meet these standards by installing scrubbers or other means;
- adverse weather, climatic or other natural conditions, including natural disasters;
- domestic and foreign economic conditions, including economic slowdowns;
- legislative, regulatory and judicial developments, environmental regulatory changes or changes in energy policy and energy conservation measures that would adversely affect the coal industry, such as legislation limiting carbon emissions or providing for increased funding and incentives for alternative energy sources;
- the proximity to, capacity of and cost of transportation and port facilities; and
- market price fluctuations for sulfur dioxide emission allowances.

A substantial or extended decline in the prices we receive for our future coal sales contracts could materially and adversely affect us by decreasing our profitability and the value of our coal reserves.

***Our coal mining operations are subject to operating risks that are beyond our control, which could result in materially increased operating expenses and decreased production levels and could materially and adversely affect our profitability.***

We mine coal at underground and surface mining operations. Certain factors beyond our control, including those listed below, could disrupt our coal mining operations, adversely affect production and shipments and increase our operating costs:

**Edgar Filing: ARCH COAL INC - Form 10-K**

poor mining conditions resulting from geological, hydrologic or other conditions that may cause instability of highwalls or spoil piles or cause damage to nearby infrastructure or mine personnel;

a major incident at the mine site that causes all or part of the operations of the mine to cease for some period of time;

mining, processing and plant equipment failures and unexpected maintenance problems;

adverse weather and natural disasters, such as heavy rains or snow, flooding and other natural events affecting operations, transportation or customers;

unexpected or accidental surface subsidence from underground mining;

**Table of Contents**

accidental mine water discharges, fires, explosions or similar mining accidents; and

competition and/or conflicts with other natural resource extraction activities and production within our operating areas, such as coalbed methane extraction or oil and gas development.

If any of these conditions or events occurs, particularly at our Black Thunder mining complex, which accounted for approximately 75% of the coal volume we sold in 2010, our coal mining operations may be disrupted, we could experience a delay or halt of production or shipments or our operating costs could increase significantly. In addition, if our insurance coverage is limited or excludes certain of these conditions or events, then we may not be able to recover any of the losses we may incur as a result of such conditions or events, some of which may be substantial.

***Competition within the coal industry could put downward pressure on coal prices and, as a result, materially and adversely affect our revenues and profitability.***

We compete with numerous other coal producers in various regions of the United States for domestic sales. International demand for U.S. coal also affects competition within our industry. The demand for U.S. coal exports depends upon a number of factors outside our control, including the overall demand for electricity in foreign markets, currency exchange rates, ocean freight rates, port and shipping capacity, the demand for foreign-priced steel, both in foreign markets and in the U.S. market, general economic conditions in foreign countries, technological developments and environmental and other governmental regulations. Foreign demand for Central Appalachian coal has increased in recent periods. If foreign demand for U.S. coal were to decline, this decline could cause competition among coal producers for the sale of coal in the United States to intensify, potentially resulting in significant downward pressure on domestic coal prices.

In addition, during the mid-1970s and early 1980s, increased demand for coal attracted new investors to the coal industry, spurred the development of new mines and resulted in additional production capacity throughout the industry, all of which led to increased competition and lower coal prices. Increases in coal prices over the past several years have encouraged the development of expanded capacity by coal producers and may continue to do so. Any resulting overcapacity and increased production could materially reduce coal prices and therefore materially reduce our revenues and profitability.

***Decreases in demand for electricity resulting from economic, weather changes or other conditions could adversely affect coal prices and materially and adversely affect our results of operations.***

Our coal is primarily used as fuel for electricity generation. Overall economic activity and the associated demand for power by industrial users can have significant effects on overall electricity demand. An economic slowdown can significantly slow the growth of electrical demand and could result in contraction of demand for coal. Declines in international prices for coal generally will impact U.S. prices for coal. During the past several years, international demand for coal has been driven, in significant part, by fluctuations in demand due to economic growth in China and India as well as other developing countries. Significant declines in the rates of economic growth in these regions could materially affect international demand for U.S. coal, which may have an adverse effect on U.S. coal prices.

Weather patterns can also greatly affect electricity demand. Extreme temperatures, both hot and cold, cause increased power usage and, therefore, increased generating requirements from all sources. Mild temperatures, on the other hand, result in lower electrical demand, which allows generators to choose the sources of power generation when deciding which generation sources to dispatch. Any downward pressure on coal prices, due to decreases in overall demand or otherwise, including changes in weather patterns, would materially and adversely affect our results of operations.



**Table of Contents**

***The use of alternative energy sources for power generation could reduce coal consumption by U.S. electric power generators, which could result in lower prices for our coal. Declines in the prices at which we sell our coal could reduce our revenues and materially and adversely affect our business and results of operations.***

In 2010, approximately 76% of the tons we sold were to domestic electric power generators. The amount of coal consumed for U.S. electric power generation is affected by, among other things:

the location, availability, quality and price of alternative energy sources for power generation, such as natural gas, fuel oil, nuclear, hydroelectric, wind, biomass and solar power; and

technological developments, including those related to alternative energy sources.

Gas-fueled generation has the potential to displace coal-fueled generation, particularly from older, less efficient coal-powered generators. We expect that many of the new power plants needed to meet increasing demand for electricity generation will be fueled by natural gas because gas-fired plants are cheaper to construct and permits to construct these plants are easier to obtain as natural gas is seen as having a lower environmental impact than coal-fueled generators. In addition, state and federal mandates for increased use of electricity from renewable energy sources could have an impact on the market for our coal. Several states have enacted legislative mandates requiring electricity suppliers to use renewable energy sources to generate a certain percentage of power. There have been numerous proposals to establish a similar uniform, national standard although none of these proposals have been enacted to date. Possible advances in technologies and incentives, such as tax credits, to enhance the economics of renewable energy sources could make these sources more competitive with coal. Any reduction in the amount of coal consumed by domestic electric power generators could reduce the price of coal that we mine and sell, thereby reducing our revenues and materially and adversely affecting our business and results of operations.

***Our inability to acquire additional coal reserves or our inability to develop coal reserves in an economically feasible manner may adversely affect our business.***

Our profitability depends substantially on our ability to mine and process, in a cost-effective manner, coal reserves that possess the quality characteristics desired by our customers. As we mine, our coal reserves decline. As a result, our future success depends upon our ability to acquire additional coal that is economically recoverable. If we fail to acquire or develop additional coal reserves, our existing reserves will eventually be depleted. We may not be able to obtain replacement reserves when we require them. If available, replacement reserves may not be available at favorable prices, or we may not be capable of mining those reserves at costs that are comparable with our existing coal reserves. Our ability to obtain coal reserves in the future could also be limited by the availability of cash we generate from our operations or available financing, restrictions under our existing or future financing arrangements, and competition from other coal producers, the lack of suitable acquisition or lease-by-application, or LBA, opportunities or the inability to acquire coal properties or LBAs on commercially reasonable terms. If we are unable to acquire replacement reserves, our future production may decrease significantly and our operating results may be negatively affected. In addition, we may not be able to mine future reserves as profitably as we do at our current operations.

***Inaccuracies in our estimates of our coal reserves could result in decreased profitability from lower than expected revenues or higher than expected costs.***

Our future performance depends on, among other things, the accuracy of our estimates of our proven and probable coal reserves. We base our estimates of reserves on engineering, economic and geological data assembled, analyzed and reviewed by internal and third-party engineers and consultants. We update our estimates of the quantity and quality of proven and probable coal reserves annually to reflect the production of coal from the reserves, updated geological models and mining recovery data, the tonnage contained in new lease areas acquired and estimated costs of

Edgar Filing: ARCH COAL INC - Form 10-K

production and sales prices. There are numerous factors and assumptions

**Table of Contents**

inherent in estimating the quantities and qualities of, and costs to mine, coal reserves, including many factors beyond our control, including the following:

quality of the coal;

geological and mining conditions, which may not be fully identified by available exploration data and/or may differ from our experiences in areas where we currently mine;

the percentage of coal ultimately recoverable;

the assumed effects of regulation, including the issuance of required permits, taxes, including severance and excise taxes and royalties, and other payments to governmental agencies;

assumptions concerning the timing for the development of the reserves; and

assumptions concerning equipment and productivity, future coal prices, operating costs, including for critical supplies such as fuel, tires and explosives, capital expenditures and development and reclamation costs.

As a result, estimates of the quantities and qualities of economically recoverable coal attributable to any particular group of properties, classifications of reserves based on risk of recovery, estimated cost of production, and estimates of future net cash flows expected from these properties as prepared by different engineers, or by the same engineers at different times, may vary materially due to changes in the above factors and assumptions. Actual production recovered from identified reserve areas and properties, and revenues and expenditures associated with our mining operations, may vary materially from estimates. Any inaccuracy in our estimates related to our reserves could result in decreased profitability from lower than expected revenues and/or higher than expected costs.

***Increases in the costs of mining and other industrial supplies, including steel-based supplies, diesel fuel and rubber tires, or the inability to obtain a sufficient quantity of those supplies, could negatively affect our operating costs or disrupt or delay our production.***

Our coal mining operations use significant amounts of steel, diesel fuel, explosives, rubber tires and other mining and industrial supplies. The cost of roof bolts we use in our underground mining operations depend on the price of scrap steel. We also use significant amounts of diesel fuel and tires for the trucks and other heavy machinery we use, particularly at our Black Thunder mining complex. If the prices of mining and other industrial supplies, particularly steel-based supplies, diesel fuel and rubber tires, increase, our operating costs could be negatively affected. In addition, if we are unable to procure these supplies, our coal mining operations may be disrupted or we could experience a delay or halt in our production.

***Disruptions in the quantities of coal produced by our contract mine operators or purchased from other third parties could temporarily impair our ability to fill customer orders or increase our operating costs.***

We use independent contractors to mine coal at certain of our mining complexes, including select operations at our Coal-Mac and Cumberland River mining complexes. In addition, we purchase coal from third parties that we sell to our customers. Operational difficulties at contractor-operated mines or mines operated by third parties from whom we purchase coal, changes in demand for contract miners from other coal producers and other factors beyond our control could affect the availability, pricing, and quality of coal produced for or purchased by us. Disruptions in the quantities of coal produced for or purchased by us could impair our ability to fill our customer orders or require us to purchase coal from other sources in order to satisfy those orders. If we are unable to fill a customer order or if we are required to purchase coal from other sources in order to satisfy a customer order, we could lose existing customers and our

operating costs could increase.

**Table of Contents**

***Our ability to collect payments from our customers could be impaired if their creditworthiness deteriorates.***

We have contracts to supply coal to energy trading and brokering companies under which they purchase the coal for their own account or resell the coal to end users. Our ability to receive payment for coal sold and delivered depends on the continued creditworthiness of our customers. If we determine that a customer is not creditworthy, we may not be required to deliver coal under the customer's coal sales contract. If this occurs, we may decide to sell the customer's coal on the spot market, which may be at prices lower than the contracted price, or we may be unable to sell the coal at all. Furthermore, the bankruptcy of any of our customers could materially and adversely affect our financial position. In addition, our customer base may change with deregulation as utilities sell their power plants to their non-regulated affiliates or third parties that may be less creditworthy, thereby increasing the risk we bear for customer payment default. These new power plant owners may have credit ratings that are below investment grade, or may become below investment grade after we enter into contracts with them. In addition, competition with other coal suppliers could force us to extend credit to customers and on terms that could increase the risk of payment default.

***A defect in title or the loss of a leasehold interest in certain property could limit our ability to mine our coal reserves or result in significant unanticipated costs.***

We conduct a significant part of our coal mining operations on properties that we lease. A title defect or the loss of a lease could adversely affect our ability to mine the associated coal reserves. We may not verify title to our leased properties or associated coal reserves until we have committed to developing those properties or coal reserves. We may not commit to develop property or coal reserves until we have obtained necessary permits and completed exploration. As such, the title to property that we intend to lease or coal reserves that we intend to mine may contain defects prohibiting our ability to conduct mining operations. Similarly, our leasehold interests may be subject to superior property rights of other third parties. In order to conduct our mining operations on properties where these defects exist, we may incur unanticipated costs. In addition, some leases require us to produce a minimum quantity of coal and require us to pay minimum production royalties. Our inability to satisfy those requirements may cause the leasehold interest to terminate.

***The availability and reliability of transportation facilities and fluctuations in transportation costs could affect the demand for our coal or impair our ability to supply coal to our customers.***

We depend upon barge, ship, rail, truck and belt transportation systems to deliver coal to our customers. Disruptions in transportation services due to weather-related problems, mechanical difficulties, strikes, lockouts, bottlenecks, and other events could impair our ability to supply coal to our customers. As we do not have long-term contracts with transportation providers to ensure consistent and reliable service, decreased performance levels over longer periods of time could cause our customers to look to other sources for their coal needs. In addition, increases in transportation costs, including the price of gasoline and diesel fuel, could make coal a less competitive source of energy when compared to alternative fuels or could make coal produced in one region of the United States less competitive than coal produced in other regions of the United States or abroad. If we experience disruptions in our transportation services or if transportation costs increase significantly and we are unable to find alternative transportation providers, our coal mining operations may be disrupted, we could experience a delay or halt of production or our profitability could decrease significantly.

***Our profitability depends upon the long-term coal supply agreements we have with our customers. Changes in purchasing patterns in the coal industry could make it difficult for us to extend our existing long-term coal supply agreements or to enter into new agreements in the future.***

We sell a portion of our coal under long-term coal supply agreements, which we define as contracts with terms greater than one year. Under these arrangements, we fix the prices of coal shipped during the initial year and may adjust the

## Edgar Filing: ARCH COAL INC - Form 10-K

prices in later years. As a result, at any given time the market prices for similar-quality coal may exceed the prices for coal shipped under these arrangements. Changes in the coal industry may cause some of our customers not to renew, extend or enter into new long-term coal supply agreements with us or to enter

**Table of Contents**

into agreements to purchase fewer tons of coal than in the past or on different terms or prices. In addition, uncertainty caused by federal and state regulations, including the Clean Air Act, could deter our customers from entering into long-term coal supply agreements.

Because we sell a portion of our coal production under long-term coal supply agreements, our ability to capitalize on more favorable market prices may be limited. Conversely, at any given time we are subject to fluctuations in market prices for the quantities of coal that we have produced but which we have not committed to sell. As described above under **A substantial or extended decline in coal prices could negatively affect our profitability and the value of our coal reserves,** the market prices for coal may be volatile and may depend upon factors beyond our control. Our profitability may be adversely affected if we are unable to sell uncommitted production at favorable prices or at all. For more information about our long-term coal supply agreements, you should see the section entitled **Long-Term Coal Supply Arrangements.**

***The loss of, or significant reduction in, purchases by our largest customers could adversely affect our profitability.***

For the year ended December 31, 2010, we derived approximately 20% of our total coal revenues from sales to our three largest customers and approximately 40% of our total coal revenues from sales to our ten largest customers. We expect to renew, extend or enter into new long-term coal supply agreements with those and other customers. However, we may be unsuccessful in obtaining long-term coal supply agreements with those customers, and those customers may discontinue purchasing coal from us. If any of those customers, particularly any of our three largest customers, was to significantly reduce the quantities of coal it purchases from us, or if we are unable to sell coal to those customers on terms as favorable to us as the terms under our current long-term coal supply agreements, our profitability could suffer significantly. We have limited protection during adverse economic conditions and may face economic penalties if we are unable to satisfy certain quality specifications under our long-term coal supply agreements.

Our long-term coal supply agreements typically contain *force majeure* provisions allowing the parties to temporarily suspend performance during specified events beyond their control. Most of our long-term coal supply agreements also contain provisions requiring us to deliver coal that satisfies certain quality specifications, such as heat value, sulfur content, ash content, hardness and ash fusion temperature. These provisions in our long-term coal supply agreements could result in negative economic consequences to us, including price adjustments, purchasing replacement coal in a higher-priced open market, the rejection of deliveries or, in the extreme, contract termination. Our profitability may be negatively affected if we are unable to seek protection during adverse economic conditions or if we incur financial or other economic penalties as a result of these provisions of our long-term supply agreements.

***The amount of indebtedness we have incurred could significantly affect our business.***

At December 31, 2010, we had consolidated indebtedness of approximately \$1.6 billion. We also have significant lease and royalty obligations. Our ability to satisfy our debt, lease and royalty obligations, and our ability to refinance our indebtedness, will depend upon our future operating performance. Our ability to satisfy our financial obligations may be adversely affected if we incur additional indebtedness in the future. In addition, the amount of indebtedness we have incurred could have significant consequences to us, such as:

limiting our ability to obtain additional financing to fund growth, such as new LBA acquisitions or other mergers and acquisitions, working capital, capital expenditures, debt service requirements or other cash requirements

exposing us to the risk of increased interest costs if the underlying interest rates rise;

**Edgar Filing: ARCH COAL INC - Form 10-K**

limiting our ability to invest operating cash flow in our business due to existing debt service requirements; making it more difficult to obtain surety bonds, letters of credit or other financing, particularly during weak credit markets;

**Table of Contents**

causing a decline in our credit ratings;

limiting our ability to compete with companies that are not as leveraged and that may be better positioned to withstand economic downturns;

limiting our ability to acquire new coal reserves and/or plant and equipment needed to conduct operations; and

limiting our flexibility in planning for, or reacting to, and increasing our vulnerability to, changes in our business, the industry in which we compete and general economic and market conditions.

If we further increase our indebtedness, the related risks that we now face, including those described above, could intensify. In addition to the principal repayments on our outstanding debt, we have other demands on our cash resources, including capital expenditures and operating expenses. Our ability to pay our debt depends upon our operating performance. In particular, economic conditions could cause our revenues to decline, and hamper our ability to repay our indebtedness. If we do not have enough cash to satisfy our debt service obligations, we may be required to refinance all or part of our debt, sell assets or reduce our spending. We may not be able to, at any given time, refinance our debt or sell assets on terms acceptable to us or at all.

***We may be unable to comply with restrictions imposed by our credit facilities and other financing arrangements.***

The agreements governing our outstanding financing arrangements impose a number of restrictions on us. For example, the terms of our credit facilities, leases and other financing arrangements contain financial and other covenants that create limitations on our ability to borrow the full amount under our credit facilities, effect acquisitions or dispositions and incur additional debt and require us to maintain various financial ratios and comply with various other financial covenants. Our ability to comply with these restrictions may be affected by events beyond our control. A failure to comply with these restrictions could adversely affect our ability to borrow under our credit facilities or result in an event of default under these agreements. In the event of a default, our lenders and the counterparties to our other financing arrangements could terminate their commitments to us and declare all amounts borrowed, together with accrued interest and fees, immediately due and payable. If this were to occur, we might not be able to pay these amounts, or we might be forced to seek an amendment to our financing arrangements which could make the terms of these arrangements more onerous for us. As a result, a default under one or more of our existing or future financing arrangements could have significant consequences for us. For more information about some of the restrictions contained in our credit facilities, leases and other financial arrangements, you should see the section entitled Liquidity and Capital Resources.

***Failure to obtain or renew surety bonds on acceptable terms could affect our ability to secure reclamation and coal lease obligations and, therefore, our ability to mine or lease coal.***

Federal and state laws require us to obtain surety bonds to secure performance or payment of certain long-term obligations, such as mine closure or reclamation costs, federal and state workers' compensation costs, coal leases and other obligations. We may have difficulty procuring or maintaining our surety bonds. Our bond issuers may demand higher fees, additional collateral, including letters of credit or other terms less favorable to us upon those renewals. Because we are required by state and federal law to have these bonds in place before mining can commence or continue, or failure to maintain surety bonds, letters of credit or other guarantees or security arrangements would materially and adversely affect our ability to mine or lease coal. That failure could result from a variety of factors, including lack of availability, higher expense or unfavorable market terms, the exercise by third party surety bond issuers of their right to refuse to renew the surety and restrictions on availability on collateral for current and future third party surety bond issuers under the terms of our financing arrangements.



**Table of Contents**

***Our profitability may be adversely affected if we must satisfy certain below-market contracts with coal we purchase on the open market or with coal we produce at our remaining operations.***

We have agreed to guarantee Magnum's obligations to supply coal under certain coal sales contracts that we sold to Magnum. In addition, we have agreed to purchase coal from Magnum in order to satisfy our obligations under certain other contracts that have not yet been transferred to Magnum, the longest of which extends to the year 2017. If Magnum cannot supply the coal required under these coal sales contracts, we would be required to purchase coal on the open market or supply coal from our existing operations in order to satisfy our obligations under these contracts. At December 31, 2010, if we had purchased the 13 million tons of coal required under these contracts over their duration at market prices then in effect, we would have incurred a loss of approximately \$427.1 million.

***We may incur losses as a result of certain marketing, trading and asset optimization strategies.***

We seek to optimize our coal production and leverage our knowledge of the coal industry through a variety of marketing, trading and other asset optimization strategies. We maintain a system of complementary processes and controls designed to monitor and control our exposure to market and other risks as a consequence of these strategies. These processes and controls seek to balance our ability to profit from certain marketing, trading and asset optimization strategies with our exposure to potential losses. While we employ a variety of risk monitoring and mitigation techniques, those techniques and accompanying judgments cannot anticipate every potential outcome or the timing of such outcomes. In addition, the processes and controls that we use to manage our exposure to market and other risks resulting from these strategies involve assumptions about the degrees of correlation or lack thereof among prices of various assets or other market indicators. These correlations may change significantly in times of market turbulence or other unforeseen circumstances. As a result, we may experience volatility in our earnings as a result of our marketing, trading and asset optimization strategies.

**Risks Related to Environmental, Other Regulations and Legislation**

***Extensive environmental regulations, including existing and potential future regulatory requirements relating to air emissions, affect our customers and could reduce the demand for coal as a fuel source and cause coal prices and sales of our coal to materially decline.***

Coal contains impurities, including but not limited to sulfur, mercury, chlorine, carbon and other elements or compounds, many of which are released into the air when coal is burned. The operations of our customers are subject to extensive environmental regulation particularly with respect to air emissions. For example, the federal Clean Air Act and similar state and local laws extensively regulate the amount of sulfur dioxide, particulate matter, nitrogen oxides, and other compounds emitted into the air from electric power plants, which are the largest end-users of our coal. A series of more stringent requirements relating to particulate matter, ozone, haze, mercury, sulfur dioxide, nitrogen oxide and other air pollutants are expected to be proposed or become effective in coming years. In addition, concerted conservation efforts that result in reduced electricity consumption could cause coal prices and sales of our coal to materially decline.

Considerable uncertainty is associated with these air emissions initiatives. The content of regulatory requirements in the U.S. is in the process of being developed, and many new regulatory initiatives remain subject to review by federal or state agencies or the courts. Stringent air emissions limitations are either in place or are likely to be imposed in the short to medium term, and these limitations will likely require significant emissions control expenditures for many coal-fueled power plants. As a result, these power plants may switch to other fuels that generate fewer of these emissions or may install more effective pollution control equipment that reduces the need for low sulfur coal, possibly reducing future demand for coal and a reduced need to construct new coal-fueled power plants. The EIA's expectations for the coal industry assume there will be a significant number of as yet unplanned coal-fired plants built in the future

## Edgar Filing: ARCH COAL INC - Form 10-K

which may not occur. Any switching of fuel sources away from coal, closure of existing coal-fired plants, or reduced construction of new plants could have a material adverse effect on demand for and prices received for our coal. Alternatively, less stringent air emissions limitations, particularly related to sulfur, to the extent enacted could make low sulfur coal less attractive, which could also have a material adverse effect on the demand for and prices received for our coal.

**Table of Contents**

You should see Environmental and Other Regulatory Matters for more information about the various governmental regulations affecting us.

***Our failure to obtain and renew permits necessary for our mining operations could negatively affect our business.***

Mining companies must obtain numerous permits that impose strict regulations on various environmental and operational matters in connection with coal mining. These include permits issued by various federal, state and local agencies and regulatory bodies. The permitting rules, and the interpretations of these rules, are complex, change frequently and are often subject to discretionary interpretations by the regulators, all of which may make compliance more difficult or impractical, and may possibly preclude the continuance of ongoing operations or the development of future mining operations. The public, including non-governmental organizations, anti-mining groups and individuals, have certain statutory rights to comment upon and submit objections to requested permits and environmental impact statements prepared in connection with applicable regulatory processes, and otherwise engage in the permitting process, including bringing citizens lawsuits to challenge the issuance of permits, the validity of environmental impact statements or performance of mining activities. Accordingly, required permits may not be issued or renewed in a timely fashion or at all, or permits issued or renewed may be conditioned in a manner that may restrict our ability to efficiently and economically conduct our mining activities, any of which would materially reduce our production, cash flow and profitability.

***Federal or state regulatory agencies have the authority to order certain of our mines to be temporarily or permanently closed under certain circumstances, which could materially and adversely affect our ability to meet our customers' demands.***

Federal or state regulatory agencies have the authority under certain circumstances following significant health and safety incidents, such as fatalities, to order a mine to be temporarily or permanently closed. If this occurred, we may be required to incur capital expenditures to re-open the mine. In the event that these agencies order the closing of our mines, our coal sales contracts generally permit us to issue *force majeure* notices which suspend our obligations to deliver coal under these contracts. However, our customers may challenge our issuances of *force majeure* notices. If these challenges are successful, we may have to purchase coal from third-party sources, if it is available, to fulfill these obligations, incur capital expenditures to re-open the mines and/or negotiate settlements with the customers, which may include price reductions, the reduction of commitments or the extension of time for delivery or terminate customers' contracts. Any of these actions could have a material adverse effect on our business and results of operations.

***Extensive environmental regulations impose significant costs on our mining operations, and future regulations could materially increase those costs or limit our ability to produce and sell coal.***

The coal mining industry is subject to increasingly strict regulation by federal, state and local authorities with respect to environmental matters such as:

limitations on land use;

mine permitting and licensing requirements;

reclamation and restoration of mining properties after mining is completed;

management of materials generated by mining operations;

the storage, treatment and disposal of wastes;

remediation of contaminated soil and groundwater;  
air quality standards;  
water pollution;  
protection of human health, plant-life and wildlife, including endangered or threatened species;

**Table of Contents**

protection of wetlands;  
the discharge of materials into the environment;  
the effects of mining on surface water and groundwater quality and availability; and  
the management of electrical equipment containing polychlorinated biphenyls.

The costs, liabilities and requirements associated with the laws and regulations related to these and other environmental matters may be costly and time-consuming and may delay commencement or continuation of exploration or production operations. We cannot assure you that we have been or will be at all times in compliance with the applicable laws and regulations. Failure to comply with these laws and regulations may result in the assessment of administrative, civil and criminal penalties, the imposition of cleanup and site restoration costs and liens, the issuance of injunctions to limit or cease operations, the suspension or revocation of permits and other enforcement measures that could have the effect of limiting production from our operations. We may incur material costs and liabilities resulting from claims for damages to property or injury to persons arising from our operations. If we are pursued for sanctions, costs and liabilities in respect of these matters, our mining operations and, as a result, our profitability could be materially and adversely affected.

New legislation or administrative regulations or new judicial interpretations or administrative enforcement of existing laws and regulations, including proposals related to the protection of the environment that would further regulate and tax the coal industry, may also require us to change operations significantly or incur increased costs. Such changes could have a material adverse effect on our financial condition and results of operations. You should see the section entitled **Environmental and Other Regulatory Matters** for more information about the various governmental regulations affecting us.

***If the assumptions underlying our estimates of reclamation and mine closure obligations are inaccurate, our costs could be greater than anticipated.***

SMCRA and counterpart state laws and regulations establish operational, reclamation and closure standards for all aspects of surface mining, as well as most aspects of underground mining. We base our estimates of reclamation and mine closure liabilities on permit requirements, engineering studies and our engineering expertise related to these requirements. Our management and engineers periodically review these estimates. The estimates can change significantly if actual costs vary from our original assumptions or if governmental regulations change significantly. We are required to record new obligations as liabilities at fair value under generally accepted accounting principles. In estimating fair value, we considered the estimated current costs of reclamation and mine closure and applied inflation rates and a third-party profit, as required. The third-party profit is an estimate of the approximate markup that would be charged by contractors for work performed on our behalf. The resulting estimated reclamation and mine closure obligations could change significantly if actual amounts change significantly from our assumptions, which could have a material adverse effect on our results of operations and financial condition.

***Our operations may impact the environment or cause exposure to hazardous substances, and our properties may have environmental contamination, which could result in material liabilities to us.***

Our operations currently use hazardous materials and generate limited quantities of hazardous wastes from time to time. We could become subject to claims for toxic torts, natural resource damages and other damages as well as for the investigation and clean up of soil, surface water, groundwater, and other media. Such claims may arise, for example, out of conditions at sites that we currently own or operate, as well as at sites that we previously owned or

Edgar Filing: ARCH COAL INC - Form 10-K

operated, or may acquire. Our liability for such claims may be joint and several, so that we may be held responsible for more than our share of the contamination or other damages, or even for the entire share.

We maintain extensive coal refuse areas and slurry impoundments at a number of our mining complexes. Such areas and impoundments are subject to extensive regulation. Slurry impoundments have been known to fail, releasing large volumes of coal slurry into the surrounding environment. Structural failure of an

**Table of Contents**

impoundment can result in extensive damage to the environment and natural resources, such as bodies of water that the coal slurry reaches, as well as liability for related personal injuries and property damages, and injuries to wildlife. Some of our impoundments overlie mined out areas, which can pose a heightened risk of failure and of damages arising out of failure. If one of our impoundments were to fail, we could be subject to substantial claims for the resulting environmental contamination and associated liability, as well as for fines and penalties.

Drainage flowing from or caused by mining activities can be acidic with elevated levels of dissolved metals, a condition referred to as acid mine drainage, which we refer to as AMD. The treating of AMD can be costly. Although we do not currently face material costs associated with AMD, it is possible that we could incur significant costs in the future.

These and other similar unforeseen impacts that our operations may have on the environment, as well as exposures to hazardous substances or wastes associated with our operations, could result in costs and liabilities that could materially and adversely affect us.

***Judicial rulings that restrict how we may dispose of mining wastes could significantly increase our operating costs, discourage customers from purchasing our coal and materially harm our financial condition and operating results.***

To dispose of mining overburden generated by our surface mining operations, we often need to obtain permits to construct and operate valley fills and surface impoundments. Some of these permits are Clean Water Act § 404 permits issued by the Army Corps of Engineers. Two of our operating subsidiaries were identified in an existing lawsuit, which challenged the issuance of such permits and asked that the Corps be ordered to rescind them. Two of our operating subsidiaries intervened in the suit to protect their interests in being allowed to operate under the issued permits, and one of them thereafter was dismissed. On February 13, 2009, the U.S. Court of Appeals for the Fourth Circuit ruled on appeals from decisions rendered prior to our intervention, which may have a favorable impact on our permits. The matter is pending before the U.S. District Court for the Southern District of West Virginia on Mingo Logan's motion for summary judgment.

***Changes in the legal and regulatory environment, particularly in light of developments in 2010, could complicate or limit our business activities, increase our operating costs or result in litigation.***

The conduct of our businesses is subject to various laws and regulations administered by federal, state and local governmental agencies in the United States. These laws and regulations may change, sometimes dramatically, as a result of political, economic or social events or in response to significant events. Certain recent developments particularly may cause changes in the legal and regulatory environment in which we operate and may impact our results or increase our costs or liabilities. Such legal and regulatory environment changes may include changes in: the processes for obtaining or renewing permits; costs associated with providing healthcare benefits to employees; health and safety standards; accounting standards; taxation requirements; and competition laws.

For example, in April 2010, the EPA issued comprehensive guidance regarding the water quality standards that EPA believes should apply to certain new and renewed Clean Water Act permit applications for Appalachian surface coal mining operations. Under the EPA's guidance, applicants seeking to obtain state and federal Clean Water Act permits for surface coal mining in Appalachia must perform an evaluation to determine if a reasonable potential exists that the proposed mining would cause a violation of water quality standards. According to the EPA Administrator, the water quality standards set forth in the EPA's guidance may be difficult for most surface mining operations to meet. Additionally, the EPA's guidance contains requirements for the avoidance and minimization of environmental and mining impacts, consideration of the full range of potential impacts on the environment, human health and local communities, including low-income or minority populations, and provision of meaningful opportunities for public participation in the permit process. EPA's guidance is subject to several pending legal challenges related to its legal

## Edgar Filing: ARCH COAL INC - Form 10-K

effect and sufficiency including consolidated challenges pending in Federal District Court in the District of Columbia led by the National Mining Association. We may be required to meet these requirements in the future in order to obtain and maintain permits that are important

**Table of Contents**

to our Appalachian operations. We cannot give any assurance that we will be able to meet these or any other new standards.

In response to the April 2010 explosion at Massey Energy Company's Upper Big Branch Mine and the ensuing tragedy, we expect that safety matters pertaining to underground coal mining operations will be the topic of new legislation and regulation, as well as the subject of heightened enforcement efforts. For example, federal and West Virginia state authorities have announced special inspections of coal mines to evaluate several safety concerns, including the accumulation of coal dust and the proper ventilation of gases such as methane. In addition, both federal and West Virginia state authorities have announced that they are considering changes to mine safety rules and regulations which could potentially result in additional or enhanced required safety equipment, more frequent mine inspections, stricter and more thorough enforcement practices and enhanced reporting requirements. Any new environmental, health and safety requirements may increase the costs associated with obtaining or maintaining permits necessary to perform our mining operations or otherwise may prevent, delay or reduce our planned production, any of which could adversely affect our financial condition, results of operations and cash flows.

Further, mining companies are entitled a tax deduction for percentage depletion, which may allow for depletion deductions in excess of the basis in the mineral reserves. The deduction is currently being reviewed by the federal government for repeal. If repealed, the inability to take a tax deduction for percentage depletion could have a material impact on our financial condition, results of operations, cash flows and future tax payments.

**ITEM 1B. UNRESOLVED STAFF COMMENTS.**

None.

**ITEM 2. PROPERTIES.**

**Our Properties**

*General*

At December 31, 2010, we owned or controlled primarily through long-term leases approximately 100,132 acres of coal land in West Virginia, 107,812 acres of coal land in Wyoming, 98,982 acres of coal land in Illinois, 73,361 acres of coal land in Utah, 49,069 acres of coal land in Kentucky, 18,114 acres of coal land in Montana, 21,798 acres of coal land in New Mexico and 18,521 acres of coal land in Colorado. In addition, we also owned or controlled through long-term leases smaller parcels of property in Alabama, Indiana and Texas. We lease approximately 124,687 acres of our coal land from the federal government and approximately 36,570 acres of our coal land from various state governments. Certain of our preparation plants or loadout facilities are located on properties held under leases which expire at varying dates over the next 30 years. Most of the leases contain options to renew. Our remaining preparation plants and loadout facilities are located on property owned by us or for which we have a special use permit.

Our executive headquarters occupy approximately 92,900 square feet of leased space at One CityPlace Drive, in St. Louis, Missouri. Our subsidiaries currently own or lease the equipment utilized in their mining operations. You should see **Our Mining Operations** for more information about our mining operations, mining complexes and transportation facilities.

**Our Coal Reserves**

We estimate that we owned or controlled approximately 4.4 billion tons of proven and probable recoverable reserves at December 31, 2010. Our coal reserve estimates at December 31, 2010 were prepared by our engineers and

## Edgar Filing: ARCH COAL INC - Form 10-K

geologists and reviewed by Weir International, Inc., a mining and geological consultant. Our coal reserve estimates are based on data obtained from our drilling activities and other available geologic data. Our coal reserve estimates are periodically updated to reflect past coal production and other geologic and mining

Table of Contents

data. Acquisitions or sales of coal properties will also change these estimates. Changes in mining methods or the utilization of new technologies may increase or decrease the recovery basis for a coal seam.

Our coal reserve estimates include reserves that can be economically and legally extracted or produced at the time of their determination. In determining whether our reserves meet this standard, we take into account, among other things, our potential inability to obtain a mining permit, the possible necessity of revising a mining plan, changes in estimated future costs, changes in future cash flows caused by changes in costs required to be incurred to meet regulatory requirements and obtaining mining permits, variations in quantity and quality of coal, and varying levels of demand and their effects on selling prices. We use various assumptions in preparing our estimates of our coal reserves. You should see **Inaccuracies in our estimates of our coal reserves could result in decreased profitability from lower than expected revenues or higher than expected costs** contained under the heading **Risk Factors**.

The following tables present our estimated assigned and unassigned recoverable coal reserves at December 31, 2010:

**Total Assigned Reserves**

(Tons in millions)

	Total						Past Reserve								
	Assigned			Sulfur Content			As Received Btus per lb.(1)	Reserve Control			Mining Method		Estimates		
	Recoverable			(lbs. per million Btus)				Under-							
	Reserves	Proven	Probable	<1.2	1.2-2.5	>2.5		Leased	Owned	Surface	ground	2007	2008		
Wyoming	1,605	1,581	24	1,514	91		8,852	1,592	13	1,605		1,476	1,733		
Montana	84	50	34	74	9	1	11,337	83	1			84	89		
North Dakota	64	52	12	64			11,278	64				64	71		
Colorado	175	165	10	59	111	5	12,779	168	7	77	98	176	168		
Illinois															
Total	1,928	1,848	80	1,711	211	6	9,397	1,907	21	1,682	246	1,812	2,088		

(1) As received Btus per lb. includes the weight of moisture in the coal on an as sold basis.

**Total Unassigned Reserves**

(Tons in millions)

	Total		Sulfur Content		As Received	Reserve Control	Mining Method
	Unassigned	Recovered	(lbs. per million Btus)				

Edgar Filing: ARCH COAL INC - Form 10-K

	<b>Reserves</b>	<b>Proven</b>	<b>Probable</b>	<b>&lt;1.2</b>	<b>1.2-2.5</b>	<b>&gt;2.5</b>	<b>Btus per lb.(1)</b>	<b>Leased</b>	<b>Owned</b>	<b>Surface</b>	<b>Underground</b>
Wyoming	489	405	84	440	49		9,567	396	93	314	175
Montana	1,353	1,041	312	1,353			8,575	1,353		1,353	
Utah	73	21	52	41	32		11,454	72	1		73
Colorado	45	37	8	45			11,384	45			45
Central App	193	125	68	33	122	38	12,843	137	56	29	164
Illinois	364	223	141			364	11,305	57	307	2	362
Total	2,517	1,852	665	1,912	203	402	9,623	2,060	457	1,698	819

(1) As received Btus per lb. includes the weight of moisture in the coal on an as sold basis.

Federal and state legislation controlling air pollution affects the demand for certain types of coal by limiting the amount of sulfur dioxide which may be emitted as a result of fuel combustion and encourages a greater demand for low-sulfur coal. All of our identified coal reserves have been subject to preliminary coal seam analysis to test sulfur content. Of these reserves, approximately 81.5% consist of compliance coal, or coal which emits 1.2 pounds or less of sulfur dioxide per million Btus upon combustion, while an additional 6.3% could be sold as low-sulfur coal. The balance is classified as high-sulfur coal. Most of our reserves are suitable for the domestic

**Table of Contents**

steam coal markets. A substantial portion of the low-sulfur and compliance coal reserves at the Cumberland River, Lone Mountain and Mountain Laurel mining complexes may also be used as metallurgical coal.

The carrying cost of our coal reserves at December 31, 2010 was \$1.7 billion, consisting of \$100.5 million of prepaid royalties and a net book value of coal lands and mineral rights of \$1.6 billion.

### **Reserve Acquisition Process**

We acquire a significant portion of the coal we control in the western United States through LBA process. Under this process, before a mining company can obtain new coal reserves, the coal tract must be nominated for lease, and the company must win the lease through a competitive bidding process. The LBA process can last anywhere from two to five years from the time the coal tract is nominated to the time a final bid is accepted by the BLM. After the LBA is awarded, the company then conducts the necessary testing to determine what amount can be classified as reserves.

To initiate the LBA process, companies wanting to acquire additional coal must file an application with the BLM's state office indicating interest in a specific coal tract. The BLM reviews the initial application to determine whether the application conforms to existing land-use plans for that particular tract of land and that the application would provide for maximum coal recovery. The application is further reviewed by a regional coal team at a public meeting. Based on a review of the available information and public comment, the regional coal team will make a recommendation to the BLM whether to continue, modify or reject the application.

If the BLM determines to continue the application, the company that submitted the application will pay for a BLM-directed environmental analysis or an environmental impact statement to be completed. This analysis or impact statement is subject to publication and public comment. The BLM may consult with other governmental agencies during this process, including state and federal agencies, surface management agencies, Native American tribes or bands, the U.S. Department of Justice or others as needed. The public comment period for an analysis or impact statement typically occurs over a 60-day period.

After the environmental analysis or environmental impact statement has been issued and a recommendation has been published that supports the lease sale of the LBA tract, the BLM schedules a public competitive lease sale. The BLM prepares an internal estimate of the fair market value of the coal that is based on its economic analysis and comparable sales analysis. Prior to the lease sale, companies interested in acquiring the lease must send sealed bids to the BLM. The bid amounts for the lease are payable in five annual installments, with the first 20% installment due when the mining operator submits its initial bid for an LBA. Before the lease is approved by the BLM, the company must first furnish to the BLM an initial rental payment for the first year of rent along with either a bond for the next 20% annual installment payment for the bid amount, or an application for history of timely payment, in which case the BLM may waive the bond requirement if the company successfully meets all the qualifications of a timely payor. The bids are opened at the lease sale. If the BLM decides to grant a lease, the lease is awarded to the company that submitted the highest total bid meeting or exceeding the BLM's fair market value estimate, which is not published. The BLM, however, is not required to grant a lease even if it determines that a bid meeting or exceeding the fair market value of the coal has been submitted. The winning bidder must also submit a report setting forth the nature and extent of its coal holdings to the U.S. Department of Justice for a 30-day antitrust review of the lease. If the successful bidder was not the initial applicant, the BLM will refund the initial applicant certain fees it paid in connection with the application process, for example the fees associated with the environmental analysis or environmental impact statement, and the winning bidder will bear those costs. Coal won through the LBA process and subject to federal leases are administered by the U.S. Department of Interior under the Federal Coal Leasing Amendment Act of 1976. In addition, we occasionally add small coal tracts adjacent to our existing LBAs through an agreed upon lease modification with the BLM. Once the BLM has issued a lease, the company must also complete the permitting process before it can mine the coal. You should see the section entitled Environmental and Other Regulatory Matters.

Most of our federal coal leases have an initial term of 20 years and are renewable for subsequent 10-year periods and for so long thereafter as coal is produced in commercial quantities. These leases require diligent

**Table of Contents**

development within the first ten years of the lease award with a required coal extraction of 1.0% of the total coal under the lease by the end of that 10-year period. At the end of the 10-year development period, the lessee is required to maintain continuous operations, as defined in the applicable leasing regulations. In certain cases a lessee may combine contiguous leases into a logical mining unit, which we refer to as an LMU. This allows the production of coal from any of the leases within the LMU to be used to meet the continuous operation requirements for the entire LMU. Some of our mines are also subject to coal leases with applicable state regulatory agencies and have different terms and conditions that we must adhere to in a similar way to our federal leases. Under these federal and state leases, if the leased coal is not diligently developed during the initial 10-year development period or if certain other terms of the leases are not complied with, including the requirement to produce a minimum quantity of coal or pay a minimum production royalty, if applicable, the BLM or the applicable state regulatory agency can terminate the lease prior to the expiration of its term.

**Title to Coal Property**

Title to coal properties held by lessors or grantors to us and our subsidiaries and the boundaries of properties are normally verified at the time of leasing or acquisition. However, in cases involving less significant properties and consistent with industry practices, title and boundaries are not completely verified until such time as our independent operating subsidiaries prepare to mine such reserves. If defects in title or boundaries of undeveloped reserves are discovered in the future, control of and the right to mine such reserves could be adversely affected. You should see **A defect in title or the loss of a leasehold interest in certain property could limit our ability to mine our coal reserves or result in significant unanticipated costs** contained under the heading **Risk Factors** for more information.

At December 31, 2010, approximately 10.7% of our coal reserves were held in fee, with the balance controlled by leases, most of which do not expire until the exhaustion of mineable and merchantable coal. Under current mining plans, substantially all reported leased reserves will be mined out within the period of existing leases or within the time period of assured lease renewals. Royalties are paid to lessors either as a fixed price per ton or as a percentage of the gross sales price of the mined coal. The majority of the significant leases are on a percentage royalty basis. In some cases, a payment is required, payable either at the time of execution of the lease or in annual installments. In most cases, the prepaid royalty amount is applied to reduce future production royalties.

From time to time, lessors or sublessors of land leased by our subsidiaries have sought to terminate such leases on the basis that such subsidiaries have failed to comply with the financial terms of the leases or that the mining and related operations conducted by such subsidiaries are not authorized by the leases. Some of these allegations relate to leases upon which we conduct operations material to our consolidated financial position, results of operations and liquidity, but we do not believe any pending claims by such lessors or sublessors have merit or will result in the termination of any material lease or sublease.

We leased approximately 36,679 acres of property to other coal operators in 2010. We received royalty income of \$4.1 million in 2010 from the mining of approximately 1.8 million tons, \$6.3 million in 2009 from the mining of approximately 2.2 million tons and \$6.8 million in 2008 from the mining of approximately 3.1 million tons on those properties. We have included reserves at properties leased by us to other coal operators in the reserve figures set forth in this report.

**ITEM 3. LEGAL PROCEEDINGS.**

We are involved in various claims and legal actions arising in the ordinary course of business, including employee injury claims. After conferring with counsel, it is the opinion of management that the ultimate resolution of these claims, to the extent not previously provided for, will not have a material adverse effect on our consolidated financial condition, results of operations or liquidity.



**Table of Contents**

**Permit Litigation Matters**

Surface mines at our Mingo Logan and Coal-Mac mining operations were identified in an existing lawsuit brought by the Ohio Valley Environmental Coalition (OVEC) in the U.S. District Court for the Southern District of West Virginia as having been granted Clean Water Act § 404 permits by the Army Corps of Engineers, allegedly in violation of the Clean Water Act and the National Environmental Policy Act.

The lawsuit, brought by OVEC in September 2005, originally was filed against the Corps for permits it had issued to four subsidiaries of a company unrelated to us or our operating subsidiaries. The suit claimed that the Corps had issued permits to the subsidiaries of the unrelated company that did not comply with the National Environmental Policy Act and violated the Clean Water Act.

The court ruled on the claims associated with those four permits in orders of March 23 and June 13, 2007. In the first of those orders, the court rescinded the four permits, finding that the Corps had inadequately assessed the likely impact of valley fills on headwater streams and had relied on inadequate or unproven mitigation to offset those impacts. In the second order, the court entered a declaratory judgment that discharges of sediment from the valley fills into sediment control ponds constructed in-stream to control that sediment must themselves be permitted under a different provision of the Clean Water Act, § 402, and meet the effluent limits imposed on discharges from these ponds. Both of the district court rulings were appealed to the U.S. Court of Appeals for the Fourth Circuit.

Before the court entered its first order, the plaintiffs were permitted to amend their complaint to challenge the Coal-Mac and Mingo Logan permits. Plaintiffs sought preliminary injunctions against both operations, but later reached agreements with our operating subsidiaries that have allowed mining to progress in limited areas while the district court's rulings were on appeal. The claims against Coal-Mac were thereafter dismissed.

In February 2009, the Fourth Circuit reversed the District Court. The Fourth Circuit held that the Corps' jurisdiction under Section 404 of the Clean Water Act is limited to the narrow issue of the filling of jurisdictional waters. The court also held that the Corps' findings of no significant impact under the National Environmental Policy Act and no significant degradation under the Clean Water Act are entitled to deference. Such findings entitle the Corps to avoid preparing an environmental impact statement, the absence of which was one issue on appeal. These holdings also validated the type of mitigation projects proposed by our operations to minimize impacts and comply with the relevant statutes. Finally, the Fourth Circuit found that stream segments, together with the sediment ponds to which they connect, are unitary waste treatment systems, not waters of the United States, and that the Corps had not exceeded its authority in permitting them.

The Ohio Valley Environmental Coalition sought rehearing before the entire appellate court, which was denied in May, 2009, and the decision was given legal effect in June 2009. An appeal to the U.S. Supreme Court was then filed in August 2009. On August 3, 2010 OVEC withdrew its appeal.

Mingo Logan filed a motion for summary judgment with the district court in July 2009, asking that judgment be entered in its favor because no outstanding legal issues remained for decision as a result of the Fourth Circuit's February 2009 decision. By a series of motions, the United States obtained extensions and stays of the obligation to respond to the motion in the wake of its letters to the Corps dated September 3 and October 16, 2009 (discussed below). By order dated April 22, 2010, the District Court stayed the case as to Mingo Logan for the shorter of either six months or the completion of the U.S. Environmental Protection Agency's (the EPA) proposed action to deny Mingo Logan the right to use its Corps' permit (as discussed below).

On October 15, 2010, the United States moved to extend the existing stay for an additional 120 days (until February 22, 2011) while the EPA Administrator reviews the Recommended Determination issued by EPA Region 3.

## Edgar Filing: ARCH COAL INC - Form 10-K

By Memorandum Opinion and Order dated November 2, 2010, the court granted the United States motion. On January 13, 2011, EPA issued its Final Determination to withdraw the specification of two of the three watersheds as a disposal site for dredged or fill material approved under the current Section 404 permit. The court has been notified of the Final Determination.

**Table of Contents**

Additional information can be obtained from the U.S. District Court for the Southern District of West Virginia.

**EPA Actions related to water discharges from the Spruce Permit**

By letter of September 3, 2009, the EPA asked the Corps of Engineers to suspend, revoke or modify the existing permit it issued in January 2007 to Mingo Logan under Section 404 of the Clean Water Act, claiming that new information and circumstances have arisen which justify reconsideration of the permit. By letter of September 30, 2009, the Corps of Engineers advised the EPA that it would not reconsider its decision to issue the permit. By letter of October 16, 2009, the EPA advised the Corps that it has reason to believe that the Mingo Logan mine will have unacceptable adverse impacts to fish and wildlife resources and that it intends to issue a public notice of a proposed determination to restrict or prohibit discharges of fill material that already are approved by the Corps permit. By federal register publication dated April 2, 2010, EPA issued its Proposed Determination to Prohibit, Restrict or Deny the Specification, or the Use for Specification of an Area as a Disposal Site: Spruce No. 1 Surface Mine, Logan County, WV pursuant to Section 404 c of the Clean Water Act. EPA accepted written comments on its proposed action (sometimes known as a veto proceeding), through June 4, 2010 and conducted a public hearing, as well, on May 18, 2010. We submitted comments on the action during this period. On September 24, 2010, EPA Region 3 issued a Recommended Determination to the EPA Administrator recommending that EPA prohibit the placement of fill material in two of the three watersheds for which filling is approved under the current Section 404 permit. Mingo Logan, along with the Corps, West Virginia DEP and the mineral owner, engaged in a consultation with EPA as required by the regulations, to discuss corrective action to address the unacceptable adverse effects identified. On January 13, 2011, EPA issued its Final Determination pursuant to Section 404(c) of the Clean Water Act to withdraw the specification of two of the three watersheds approved in the current Section 404 permit as a disposal site for dredged or fill material. By separate action, Mingo Logan sued EPA on April 2, 2010 in federal court in Washington, D.C. seeking a ruling that EPA has no authority under the Clean Water Act to veto a previously issued permit (Mingo Logan Coal Company, Inc. v. USEPA, No. 1:10-cv-00541(D.D.C.)). EPA moved to dismiss that action, and we responded to that motion. The court has been notified of the Final Determination and on February 23, 2011 entered a scheduling order for summary disposition of the case.

**Clean Water Act Request for Information**

In January 2008, we received a request from the EPA for certain information related to compliance with effluent limitations and water quality standards under Section 308 of the Clean Water Act applicable to our eastern mining complexes located in West Virginia, Virginia and Kentucky. The request focuses on our compliance with water quality standards and effluent limitations at numerous outfalls as identified in the various NPDES permits applicable to our eastern mining complexes for the period beginning on January 1, 2003 through January 1, 2008. The compliance reporting mechanism is contained in Discharge Monitoring Reports which are required to be prepared and submitted quarterly to state environmental agencies and contain detailed monthly compliance data. In July 2008, the EPA referred the request to the U.S. Department of Justice. We negotiated a compromise with the Department of Justice, the EPA, the West Virginia Department of Environmental Protection and Kentucky Energy and Environment Cabinet to fully and finally resolve the issues identified in the EPA's Section 308 Request for Information. The compromise is contained in a consent decree which includes certain elements of injunctive relief and a penalty in the amount of \$4 million. The consent decree must be approved by the U.S. District Court for the Southern District of West Virginia before it becomes effective.

**ITEM 4. RESERVED**

**Mine Safety and Health Administration Safety Data**

## Edgar Filing: ARCH COAL INC - Form 10-K

We believe that Arch Coal is one of the safest coal mining companies in the world. Safety is a core value at Arch Coal and at our subsidiary operations. We have in place a comprehensive safety program that includes extensive health & safety training for all employees, site inspections, emergency response preparedness, crisis communications training, incident investigation, regulatory compliance training and process auditing, as well as an open dialogue between all levels of employees. The goals of our processes are to eliminate exposure to hazards

Table of Contents

in the workplace, ensure that we comply with all mine safety regulations, and support regulatory and industry efforts to improve the health and safety of our employees along with the industry as a whole.

Under the Dodd-Frank Wall Street Reform and Consumer Protection Act passed in 2010, each operator of a coal or other mine is required to include certain mine safety results in its periodic reports filed with the Securities and Exchange Commission. The operation of our mines is subject to regulation by the federal Mine Safety and Health Administration ( MSHA ) under the Federal Mine Safety and Health Act of 1977 (the Mine Act ). Below we present the following items regarding certain mine safety and health matters, broken down by mining complex owned and operated by Arch Coal or our subsidiaries, for the three-month and twelve-month periods ended December 31, 2010:

*Section 104 Citations:* Total number of violations of mandatory health or safety standards that could significantly and substantially contribute to the cause and effect of a coal or other mine safety or health hazard under section 104 of the Mine Act for which we have received a citation from MSHA;

*Section 104(b) Orders:* Total number of orders issued under section 104(b) of the Mine Act;

*Section 104(d) Citations/Orders:* Total number of citations and orders for unwarrantable failure of the mine operator to comply with mandatory health or safety standards under Section 104(d) of the Mine Act;

*Section 107(a) Orders:* Total number of imminent danger orders issued under section 107(a) of the Mine Act; and

*Total Dollar Value of Proposed MSHA Assessments:* Total dollar value of proposed assessments from MSHA under the Mine Act.

**Three-Month Period Ended December 31, 2010**

Mining complex(1)	Section 104 Citations	Section 104(b) Orders	Section 10k4(d) Citations/Orders	Section 107(a) Orders	Total Dollar Value of Proposed MSHA Assessments (In thousands)(2)
Power River Basin:					
Black Thunder					\$ 0
Coal Creek					\$ 0
Western Bituminous:					
Arch of Wyoming					\$ 0.1
Dugout Canyon	17	1	3	1	\$ 0
Skyline	8		1		\$ 10.5
Sufco	6		2		\$ 8.3
West Elk	10		1		\$ 22.9
Central Appalachia:					
Coal-Mac					\$ 0.1
Cumberland River	29		2	1	\$ 22.7
Lone Mountain	36				\$ 52.1

Mountain Laurel	50	\$	69.2
Arch Coal Terminal		\$	0

(1) MSHA assigns an identification number to each coal mine and may or may not assign separate identification numbers to related facilities such as preparation plants. We are providing the information in this table by mining complex rather than MSHA identification number because we believe this format will be more useful to investors than providing information based on MSHA identification numbers. For descriptions of each of these mining operations please refer to the descriptions under Item 1. Business, in Part I.

(2) Amounts included under the heading Total Dollar Value of Proposed MSHA Assessments are the total dollar amounts for proposed assessments received from MSHA on or before February 1, 2011 for citations and orders occurring during the three-month period ended December 31, 2010.

Table of Contents

For the three-month period ended December 31, 2010, none of our mining complexes received written notice from MSHA of (i) a flagrant violation under section 110(b)(2) of the Mine Act; (ii) a pattern of violations of mandatory health or safety standards that are of such nature as could have significantly and substantially contributed to the cause and effect of coal or other mine health or safety hazards under section 104(e) of the Mine Act; or (iii) the potential to have such a pattern. For the three-month period ended December 31, 2010, none of our mining complexes experienced a mining-related fatality.

**Twelve-Month Period Ended December 31, 2010**

<b>Mining complex(1)</b>	<b>Section 104 Citations</b>	<b>Section 104(b) Orders</b>	<b>Section 104(d) Citations/Orders</b>	<b>Section 107(a) Orders</b>	<b>Total Dollar Value of Proposed MSHA Assessments (In thousands)(2)</b>
Power River Basin:					
Black Thunder	8				\$ 19.5
Coal Creek					\$ 2.2
Western Bituminous:					
Arch of Wyoming	2				\$ 1.4
Dugout Canyon	52	2	3	1	\$ 90.1
Skyline	30		1		\$ 42.2
Sufco	37		6	1	\$ 94.4
West Elk	50		1	3	\$ 332.4
Central Appalachia:					
Coal-Mac	18				\$ 19.7
Cumberland River	96	1	5	1	\$ 307.4
Lone Mountain	174	1	8		\$ 400.6
Mountain Laurel	134	1			\$ 275.6
Arch Coal Terminal					\$ 0.5

(1) MSHA assigns an identification number to each coal mine and may or may not assign separate identification numbers to related facilities such as preparation plants. We are providing the information in this table by mining complex rather than MSHA identification number because we believe this format will be more useful to investors than providing information based on MSHA identification numbers. For descriptions of each of these mining operations please refer to the descriptions under Item 1. Business, in Part I.

(2) Amounts included under the heading Total Dollar Value of Proposed MSHA Assessments are the total dollar amounts for proposed assessments received from MSHA on or before February 1, 2011 for citations and orders occurring during the twelve-month period ended December 31, 2010.

For the twelve-month period ended December 31, 2010 none of our mining complexes received written notice from MSHA of (i) a flagrant violation under section 110(b)(2) of the Mine Act; (ii) a pattern of violations of mandatory health or safety standards that are of such nature as could have significantly and substantially contributed to the cause and effect of coal or other mine health or safety hazards under section 104(e) of the Mine Act; or (iii) the potential to

## Edgar Filing: ARCH COAL INC - Form 10-K

have such a pattern. During the twelve-month period ended December 31, 2010, we experienced one mining-related fatality at Lone Mountain.

As of December 31, 2010, we had a total of 106 matters pending before the Federal Mine Safety and Health Review Commission. This includes legal actions that were initiated prior to the twelve-month period ended December 31, 2010 and which do not necessarily relate to the citations, orders or proposed assessments issued by MSHA during such twelve-month period.

In evaluating the above information regarding mine safety and health, investors should take into account factors such as: (i) the number of citations and orders will vary depending on the size of a coal mine, (ii) the number of citations issued will vary from inspector to inspector and mine to mine, and (iii) citations and orders can be contested and appealed, and in that process are often reduced in severity and amount, and are sometimes dismissed.

Table of Contents**PART II****ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES.****Market for Registrant's Common Equity and Related Stockholder Matters**

Our common stock is listed and traded on the New York Stock Exchange under the symbol ACI. On February 28, 2011, our common stock closed at \$33.53 on the New York Stock Exchange. On that date, there were approximately 8,455 holders of record of our common stock.

Holders of our common stock are entitled to receive dividends when they are declared by our board of directors. When dividends are declared on common stock, they are usually paid in mid-March, June, September and December. We paid dividends on our common stock totaling \$63.4 million, or \$0.39 per share, in 2010 and \$55 million, or \$0.36 per share, in 2009. There is no assurance as to the amount or payment of dividends in the future because they are dependent on our future earnings, capital requirements and financial condition. You should see the section entitled Liquidity and Capital Resources for more information about restrictions on our ability to declare dividends.

The following table sets forth for each period indicated the dividends paid per common share, the high and low sale prices of our common stock and the closing price of our common stock on the last trading day for each of the quarterly periods indicated.

	2010		
	March 31	June 30	September 30
			December 31
Dividends per common share	\$ 0.09	\$ 0.10	\$ 0.10
High	28.34	28.52	27.08
Low	20.07	19.26	19.09
Close	22.85	19.81	26.71
			35.06

  

	2009		
	March 31	June 30	September 30
			December 31
Dividends per common share	\$ 0.09	\$ 0.09	\$ 0.09
High	20.63	19.94	24.10
Low	11.77	12.52	13.01
Close	13.37	15.37	22.13
			22.25

**Stock Price Performance Graph**

The following performance graph compares the cumulative total return to stockholders on our common stock with the cumulative total return on two indices: a peer group, consisting of CONSOL Energy, Inc., Alpha Natural Resources, Inc., Massey Energy Company and Peabody Energy Corp., and the Standard & Poor's (S&P) 400 (Midcap) Index. The

graph assumes that:

you invested \$100 in Arch Coal common stock and in each index at the closing price on December 31, 2005;

all dividends were reinvested;

**Table of Contents**

annual reweighting of the peer groups; and

you continued to hold your investment through December 31, 2010.

You are cautioned against drawing any conclusions from the data contained in this graph, as past results are not necessarily indicative of future performance. The indices used are included for comparative purposes only and do not indicate an opinion of management that such indices are necessarily an appropriate measure of the relative performance of our common stock.

**Comparison of 5 Year Cumulative Total Return\***  
**Among Arch Coal, Inc., The S&P Midcap 400 Index and an Industry Peer Group**

\* \$100 invested on 12/31/05 in stock or index, including reinvestment of dividends.  
Fiscal year ending December 31.

Copyright<sup>©</sup> 2011 S&P, a division of The McGraw-Hill Companies Inc. All rights reserved.

	<b>12/05</b>	<b>12/06</b>	<b>12/07</b>	<b>12/08</b>	<b>12/09</b>	<b>12/10</b>
Arch Coal, Inc.	100.00	75.99	114.58	41.96	58.52	93.75
S&P Midcap 400	100.00	110.32	119.12	75.96	104.36	132.16
Industry Peer Group	100.00	91.92	169.45	66.43	136.93	173.81

Table of Contents**Issuer Purchases of Equity Securities**

In September 2006, our board of directors authorized a share repurchase program for the purchase of up to 14,000,000 shares of our common stock. There is no expiration date on the current authorization, and we have not made any decisions to suspend or cancel purchases under the program. As of December 31, 2010, we have purchased 3,074,200 shares of our common stock under this program. We did not purchase any shares of our common stock under this program during the quarter ended December 31, 2010. Based on the closing price of our common stock as reported on the New York Stock Exchange on February 28, 2011, there is approximately \$366.3 million of our common stock that may yet be purchased under this program.

**ITEM 6. SELECTED FINANCIAL DATA.**

	Year Ended December 31				
	2010 (1) (2)	2009 (3)	2008	2007 (4)	2006 (5)
(Amounts in thousands, except per share data)					
<b>Statement of Operations Data:</b>					
Coal sales revenue	\$ 3,186,268	\$ 2,576,081	\$ 2,983,806	\$ 2,413,644	\$ 2,500,431
Change in fair value of coal derivatives and trading activities, net	(8,924)	12,056	55,093	7,292	
Income from operations	323,984	123,714	461,270	230,631	338,095
Net income attributable to Arch Coal	158,857	42,169	354,330	174,929	260,931
Preferred stock dividends				(219)	(378)
Basic earnings per common share	\$ 0.98	\$ 0.28	\$ 2.47	\$ 1.23	\$ 1.83
Diluted earnings per common share	\$ 0.97	\$ 0.28	\$ 2.45	\$ 1.21	\$ 1.80
<b>Balance Sheet Data:</b>					
Total assets	\$ 4,880,769	\$ 4,840,596	\$ 3,978,964	\$ 3,594,599	\$ 3,320,814
Working capital	207,568	55,055	46,631	(35,370)	46,471
Long-term debt, less current maturities	1,538,744	1,540,223	1,098,948	1,085,579	1,122,595
Other long-term obligations	566,728	544,578	482,651	412,484	384,498
Arch Coal stockholders' equity	2,237,507	2,115,106	1,728,733	1,531,686	1,365,594
<b>Common Stock Data:</b>					
Dividends per share	\$ 0.3900	\$ 0.3600	\$ 0.3400	\$ 0.2700	\$ 0.2200
Shares outstanding at year-end	162,605	162,441	142,833	143,158	142,179
<b>Cash Flow Data:</b>					
Cash provided by operating activities	\$ 697,147	\$ 382,980	\$ 679,137	\$ 330,810	\$ 308,102
Depreciation, depletion and amortization, including amortization of acquired sales contracts, net	400,672	321,231	292,848	242,062	208,354
Capital expenditures	314,657	323,150	497,347	488,363	623,187

Net proceeds from the issuance of long term debt	500,000	570,322			
Net proceeds from the sale of common stock		326,452			
Repayments of long term debt, including redemption premium	(505,627)				
Net increase (decrease) in borrowings under lines of credit and commercial paper program	(196,549)	(85,815)	13,493	133,476	192,300
Payments made to acquire Jacobs Ranch		(768,819)			
Dividend payments	63,373	54,969	48,847	38,945	31,815
<b>Operating Data:</b>					
Tons sold	162,763	126,116	139,595	135,010	134,976
Tons produced	156,282	119,568	133,107	126,624	126,015
Tons purchased from third parties	6,825	7,477	6,037	8,495	10,092

- (1) In the second quarter of 2010, we exchanged 68.4 million tons of coal reserves in the Illinois Basin for an additional 9% ownership interest in Knight Hawk Holdings, LLC (Knight Hawk), increasing our ownership to 42%. We recognized a pre-tax gain of \$41.6 million on the transaction, representing the difference between the fair value and net book value of the coal reserves, adjusted for our retained ownership interest in the reserves through the investment in Knight Hawk.
- (2) On August 9, 2010, we issued \$500.0 million in aggregate principal amount of 7.25% senior unsecured notes due in 2020 at par. We used the net proceeds from the offering and cash on hand to fund the redemption on September 8, 2010 of \$500.0 million aggregate principal amount of our outstanding 6.75% senior notes due in 2013 at a redemption price of 101.125%. We recognized a loss on the redemption of \$6.8 million.

**Table of Contents**

- (3) On October 1, 2009, we purchased the Jacobs Ranch mining complex in the Powder River Basin from Rio Tinto Energy America for a purchase price of \$768.8 million. To finance the acquisition, the Company sold 19.55 million shares of its common stock and \$600.0 million in aggregate principal amount of senior unsecured notes. The net proceeds received from the issuance of common stock were \$326.5 million and the net proceeds received from the issuance of the 8.75% senior unsecured notes were \$570.3 million.
- (4) On June 29, 2007, we sold select assets and related liabilities associated with our Mingo Logan Ben Creek mining complex in West Virginia for \$43.5 million. We recognized a net gain of \$8.9 million in 2007 resulting from the sale.
- (5) On October 27, 2005, we conducted a precautionary evacuation of our West Elk mine after we detected elevated readings of combustion-related gases in an area of the mine where we had completed mining activities but had not yet removed final longwall equipment. We estimate that the idling resulted in \$30.0 million of lost profits during the first quarter of 2006, in addition to the effect of the idling and fire-fighting costs incurred during the fourth quarter of 2005 of \$33.3 million. We recognized insurance recoveries related to the event of \$41.9 million during the year ended December 31, 2006.

**ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.****Overview**

We are one of the world's largest coal producers by volume. We sell the majority of our coal as steam coal to power plants and industrial facilities. We also sell metallurgical coal used in steel production. The locations of our mines and access to export facilities enable us to ship coal to most of the major coal-fueled power plants, industrial facilities and steel mills located within the United States and on four continents worldwide. Our three reportable business segments are based on the low-sulfur U.S. coal producing regions in which we operate—the Powder River Basin, the Western Bituminous region and the Central Appalachia region. These geographically distinct areas are characterized by geology, coal transportation routes to consumers, regulatory environments and coal quality. These regional distinctions have caused market and contract pricing environments to develop by coal region and form the basis for the segmentation of our operations.

The Powder River Basin is located in northeastern Wyoming and southeastern Montana. The coal we mine from surface operations in this region is very low in sulfur content and has a low heat value compared to the other regions in which we operate. The price of Powder River Basin coal is generally less than that of coal produced in other regions because Powder River Basin coal exists in greater abundance, is easier to mine and thus has a lower cost of production. In addition, Powder River Basin coal is generally lower in heat content, which requires some electric power generation facilities to blend it with higher Btu coal or retrofit some existing coal plants to accommodate lower Btu coal. The Western Bituminous region includes Colorado, Utah and southern Wyoming. Coal we mine from underground and surface mines in this region typically is low in sulfur content and varies in heat content. Central Appalachia includes eastern Kentucky, Tennessee, Virginia and southern West Virginia. Coal we mine from both surface and underground mines in this region generally has high heat content and low sulfur content. In addition, we may sell a portion of the coal we produce in the Central Appalachia region as metallurgical coal, which has high heat content, low expansion pressure, low sulfur content and various other chemical attributes. As such, the prices at which we sell metallurgical coal to customers in the steel industry generally exceed the prices for steam coal offered by power plants and industrial users.

## Edgar Filing: ARCH COAL INC - Form 10-K

Growth in domestic and global coal demand combined with coal supply constraints in many traditional coal exporting countries benefited coal markets during 2010. U.S. power generation increased more than 4% in 2010, in response to improving economic conditions, as well as favorable weather trends across most regions of the U.S. We estimate that U.S. steam coal consumption grew by 5.6% in 2010, driven by the increase in power generation as well as improving industrial demand. Growth in global coal demand, coupled with weather and infrastructure-driven supply constraints in major coal exporting countries, has also positively influenced the U.S. coal markets. As a result, U.S. coal exports reached 81 million tons in 2010, a 35% increase over 2009.

U.S. coal production overall increased 10 million tons in 2010, but declined by 12 million tons in Central Appalachia. Looking ahead, we expect continued supply pressures in Central Appalachia to create opportunities for other coal basins, particularly the Powder River Basin. Coal production in the Powder River Basin increased

**Table of Contents**

11 million tons in 2010, and forward prices for Powder River Basin coal have improved since the beginning of 2010.

We expect growing global demand and continuing supply constraints in traditional coal exporting countries to continue to fuel seaborne coal markets for both metallurgical and steam coal from the U.S.

In January 2011, we took steps towards accomplishing our strategic objective of expanding Powder River Basin coal sales into the Asia-Pacific region. We acquired a 38% interest in Millennium Bulk Terminals-Longview, LLC ( Millennium Terminal ), which owns a brownfield bulk commodity terminal on the Columbia River near Longview, Washington, in exchange for \$25.0 million plus additional consideration upon the completion of certain project milestones. Millennium Terminal continues to work on obtaining the required approvals and necessary permits to complete dredging and other upgrades to enable coal, alumina and cementitious material shipments through the terminal. We will control 38% of the terminal's throughput and storage capacity to facilitate export shipments of coal off the west coast of the United States. The terminal is served by the Union Pacific and Burlington Northern Santa Fe railroads, which will provide us with access from our Powder River Basin and Western Bituminous regions, and eventually from our recently-acquired Montana reserves. We also entered into an agreement with Canadian Crown Corporation Ridley Terminals Inc. ( Ridley Terminal ), a coal and other bulk commodity marine terminal located near Prince Rupert, British Columbia, which provides us with direct, immediate access to the growing seaborne thermal market. The five-year agreement will give us throughput capacity at the terminal of up to 2 million metric tons of coal for 2011 and up to 2.5 million metric tons of coal for 2012 through 2015. Ridley Terminal has the capacity to load up to 12 million metric tons of coal annually, with expansion plans that could double the facility's capacity by 2015.

Due to geologic issues at our Mountain Laurel mine in Central Appalachia, we anticipate our longwall at the mine will be idle until mid- to late- April 2011. The geologic challenges will require us to do additional work on the panel that had been in development, and we will instead move the longwall to a different panel as soon as development work is completed there. While the longwall is idle, we will have five continuous miner units operating at Mountain Laurel, which supply, in aggregate, approximately 30% of the mine's output and we will also be able to ship from inventories on hand. While we expect the longwall outage at Mountain Laurel to have an impact on our first quarter results, we should be able to make up some of the production as 2011 progresses. We expect to ship approximately 7 million tons of metallurgical-quality coal in 2011.

### **Items Affecting Comparability of Reported Results**

The comparability of our operating results for the years ended December 31, 2010, 2009 and 2008 is affected by the following significant items:

**Dugout Canyon production suspensions** We temporarily suspended production at our Dugout Canyon mine in Carbon County, Utah, on April 29, 2010 after an increase in carbon monoxide levels resulted from a heating event in a previously mined area. After permanently sealing the area, we resumed full coal production on May 21, 2010. On June 22, 2010, an ignition event at our longwall resulted in a second evacuation of all underground employees at the mine. All employees were safely evacuated in both events. The resumption of mining required us to render the mine's atmosphere inert, ventilate the longwall area, determine the cause of the ignition, implement preventive measures, and secure an MSHA-approved longwall ventilation plan. We restarted the longwall system on September 9, 2010, and resumed production at normalized levels by the end of September. As a result of the outages in the second and third quarters, the Dugout Canyon mine incurred a loss of \$29.3 million for the year ended December 31, 2010. We have provided additional information about the performance of our operating segments under the heading **Operating segment results**.

**Gain on Knight Hawk transaction** In the second quarter of 2010, we exchanged 68.4 million tons of coal reserves in the Illinois Basin for an additional 9% ownership interest in Knight Hawk, increasing our ownership to 42%. We

Edgar Filing: ARCH COAL INC - Form 10-K

recognized a pre-tax gain of \$41.6 million on the transaction, representing the difference between the fair value and net book value of the coal reserves, adjusted for our retained ownership interest in the reserves through the investment in Knight Hawk.

**Table of Contents**

**Refinancing of Senior Notes** On August 9, 2010, we issued \$500.0 million in aggregate principal amount of 7.25% senior unsecured notes due in 2020 at par. We used the net proceeds from the offering and cash on hand to fund the redemption on September 8, 2010 of \$500.0 million aggregate principal amount of our outstanding 6.75% senior notes due in 2013 at a redemption price of 101.125%. We recognized a loss on the redemption of \$6.8 million, including the payment of the \$5.6 million redemption premium, the write-off of \$3.3 million of unamortized debt financing costs, partially offset by the write-off of \$2.1 million of the original issue premium on the 6.75% senior notes.

**Equity and Debt Offerings** During the third quarter of 2009, we sold 19.55 million shares of our common stock at a price of \$17.50 per share and issued \$600.0 million in aggregate principal amount, 8.75% senior unsecured notes due 2016 at an initial issue price of 97.464%. The net proceeds received from the issuance of common stock were \$326.5 million and the net proceeds received from the issuance of the 8.75% senior unsecured notes were \$570.3 million. See further discussion of these transactions in **Liquidity and Capital Resources**. We used the net proceeds from these transactions primarily to finance the purchase of the Jacobs Ranch mining complex.

**Purchase of Jacobs Ranch mining operations** On October 1, 2009, we purchased the Jacobs Ranch mining operations for a purchase price of \$768.8 million. The acquired operations included approximately 345 million tons of coal reserves located adjacent to our Black Thunder mining complex. We have achieved significant operating efficiencies by combining the two operations, including operational cost savings, administrative cost reductions and coal-blending optimization.

## **Results of Operations**

### **Year Ended December 31, 2010 Compared to Year Ended December 31, 2009**

**Summary.** Our improved results during 2010 when compared to 2009 were generated from increased sales volumes, including an increase in metallurgical coal volumes sold, lower production costs and the gain on the Knight Hawk transaction. Higher selling, general and administrative costs, unrealized losses on coal derivatives and higher interest and financing costs partially offset the benefit from these factors.

**Revenues.** The following table summarizes information about coal sales during the year ended December 31, 2010 and compares it with the information for the year ended December 31, 2009:

	<b>Year Ended December 31</b>	<b>Increase (Decrease) in Net Income</b>	
	<b>2010</b>	<b>2009</b>	<b>Amount</b>
	<b>(Amounts in thousands, except per ton data and percentages)</b>		
Coal sales	\$ 3,186,268	\$ 2,576,081	\$ 610,187
Tons sold	162,763	126,116	36,647
Coal sales realization per ton sold	\$ 19.58	\$ 20.43	\$ (0.85)

Coal sales increased in 2010 from 2009, primarily due to an increase in tons sold in the Powder River Basin region, resulting from the acquisition of the Jacobs Ranch mining complex at the beginning of the fourth quarter of 2009 and the impact of an increase in metallurgical coal sales volumes. Our average coal sales realization per ton was lower in 2010, as the impact of changes in regional mix on our average selling price and lower pricing in the Powder River Basin offset the benefit of the increase in metallurgical coal sales volumes. We have provided more information about the tons sold and the coal sales realizations per ton by operating segment under the heading **Operating segment results**.



Table of Contents

*Costs, expenses and other.* The following table summarizes costs, expenses and other components of operating income for the year ended December 31, 2010 and compares it with the information for the year ended December 31, 2009:

	Year Ended December 31		Increase (Decrease) in Net Income	
	2010	2009	\$	%
	(Amounts in thousands, except percentages)			
Cost of coal sales	\$ 2,395,812	\$ 2,070,715	\$ (325,097)	(15.7)%
Depreciation, depletion and amortization	365,066	301,608	(63,458)	(21.0)
Amortization of acquired sales contracts, net	35,606	19,623	(15,983)	(81.5)
Selling, general and administrative expenses	118,177	97,787	(20,390)	(20.9)
Change in fair value of coal derivatives and coal trading activities, net	8,924	(12,056)	(20,980)	(174.0)
Gain on Knight Hawk transaction	(41,577)		41,577	N/A
Costs related to acquisition of Jacobs Ranch		13,726	13,726	100.0
Other operating income, net	(19,724)	(39,036)	(19,312)	(49.5)
	\$ 2,862,284	\$ 2,452,367	\$ (409,917)	(16.7)%

*Cost of coal sales.* Our cost of coal sales increased in 2010 from 2009 primarily due to the higher sales volumes discussed above, partially offset by the impact of a lower average cost per-ton sold, due to the impact of the changes in regional mix as well as lower per-ton production costs in all regions, exclusive of transportation and sales-sensitive costs. We have provided more information about our operating segments under the heading **Operating segment results**.

*Depreciation, depletion and amortization.* When compared with 2009, higher depreciation and amortization costs in 2010 resulted primarily from the impact of the acquisition of the Jacobs Ranch mining complex in the fourth quarter of 2009.

*Amortization of acquired sales contracts, net.* We acquired both above- and below-market sales contracts with a net fair value of \$58.4 million with the Jacobs Ranch mining operation. The fair values of acquired sales contracts are amortized over the tons of coal shipped during the term of the contracts.

*Selling, general and administrative expenses.* The increase in selling, general and administrative expenses in 2010 is due primarily to compensation-related costs, an increase of legal fees of \$1.9 million and a contribution to the Arch Coal Foundation of \$5.0 million in 2010. In particular, our improved results were the primary driver of higher costs of approximately \$5.9 million in 2010 related to our incentive compensation plans when compared to 2009. Costs related to our deferred compensation plan, where amounts recognized are impacted by changes in the value of our common stock and changes in the value of the underlying investments, also increased \$5.9 million. Legal fees increased primarily as a result of costs associated with permitting, reserve acquisitions and environmental compliance.

*Change in fair value of coal derivatives and coal trading activities, net.* Net (gains) losses relate to the net impact of our coal trading activities and the change in fair value of other coal derivatives that have not been designated as hedge instruments in a hedging relationship. During 2010, rising coal prices resulted in losses on derivative instruments positions and trading activities, compared with weaker market conditions in 2009, which resulted in gains.

Edgar Filing: ARCH COAL INC - Form 10-K

*Gain on Knight Hawk Transaction.* The gain was recognized on our exchange of Illinois Basin reserves for an additional ownership interest in Knight Hawk, an equity method investee operating in the Illinois Basin.

*Other operating income, net.* The decrease in net other operating income in 2010 from 2009 is primarily the result of a decrease in income from contract settlements and bookout transactions of \$26.4 million, partially offset by an increase in income from our investment in Knight Hawk of \$9.3 million.

Table of Contents

*Operating segment results.* The following table shows results by operating segment for year ended December 31, 2010 and compares it with the information for the year ended December 31, 2009:

	Year Ended December 31	Increase (Decrease)		
	2010	2009	\$      %	
<i>Powder River Basin</i>				
Tons sold (in thousands)	132,350	96,083	36,267	37.8%
Coal sales realization per ton sold <sup>(1)</sup>	\$ 12.06	\$ 12.43	\$ (0.37)	(3.0)%
Operating margin per ton sold <sup>(2)</sup>	\$ 1.09	\$ 0.79	\$ 0.30	38.0%
Adjusted EBITDA <sup>(3)</sup>	\$ 366,375	\$ 233,623	\$ 132,752	56.8%
<i>Western Bituminous</i>				
Tons sold (in thousands)	16,311	16,747	(436)	(2.6)%
Coal sales realization per ton sold <sup>(1)</sup>	\$ 29.61	\$ 29.11	\$ 0.50	1.7%
Operating margin per ton sold <sup>(2)</sup>	\$ 3.32	\$ 1.55	\$ 1.77	114.2%
Adjusted EBITDA <sup>(3)</sup>	\$ 138,579	\$ 113,192	\$ 25,387	22.4%
<i>Central Appalachia</i>				
Tons sold (in thousands)	14,102	13,286	816	6.1%
Coal sales realization per ton sold <sup>(1)</sup>	\$ 68.93	\$ 59.58	\$ 9.35	15.7%
Operating margin per ton sold <sup>(2)</sup>	\$ 13.25	\$ 6.22	\$ 7.03	113.0%
Adjusted EBITDA <sup>(3)</sup>	\$ 283,787	\$ 201,736	\$ 82,051	40.7%

- (1) Coal sales prices per ton exclude certain transportation costs that we pass through to our customers. We use these financial measures because we believe the amounts as adjusted better represent the coal sales prices we achieved within our operating segments. Since other companies may calculate coal sales prices per ton differently, our calculation may not be comparable to similarly titled measures used by those companies. For 2010, transportation costs per ton were \$0.08 for the Powder River Basin, \$3.34 for the Western Bituminous region and \$4.99 for Central Appalachia. For the 2009, transportation costs per ton were \$0.11 for the Powder River Basin, \$3.18 for the Western Bituminous region and \$2.89 for Central Appalachia.
- (2) Operating margin per ton sold is calculated as coal sales revenues less cost of coal sales and depreciation, depletion and amortization divided by tons sold.
- (3) Adjusted EBITDA is defined as net income attributable to the Company before the effect of net interest expense, income taxes, depreciation, depletion and amortization and the amortization of acquired sales contracts. Adjusted EBITDA may also be adjusted for items that may not reflect the trend of future results. Segment Adjusted EBITDA is reconciled to net income at the end of this *Results of Operations* section.

*Powder River Basin* The increase in sales volumes in the Powder River Basin in 2010 when compared with 2009 resulted primarily from the acquisition of the Jacobs Ranch mining operations on October 1, 2009, although improving demand for Powder River Basin coal in the second half of 2010 also had a positive impact on sales volumes. Sales prices during 2010 were slightly lower when compared with 2009, primarily reflecting the roll-off of contracts committed when market conditions were more favorable. On a per-ton basis, operating margins in 2010 increased, as a decrease in per-ton costs offset the effect of lower average sales price. The decrease in per-ton costs resulted from efficiencies achieved from combining the acquired Jacobs Ranch mining operations with our existing Black Thunder operations, as well as a decrease in hedged diesel fuel costs.

*Western Bituminous* In the Western Bituminous region, despite a soft steam coal market in the region and the two outages at the Dugout Canyon mine in 2010, sales volumes decreased only slightly compared to 2009. Sales volumes in 2009 were also affected by weaker market conditions that had an impact on our ability to market coal with a high ash content, which resulted from geologic conditions at our West Elk mine, and the decision to reduce production accordingly. A preparation plant at the West Elk mine was placed into service in the fourth quarter of 2010 to address any future quality issues arising from sandstone intrusions similar to those we encountered previously. Despite the detrimental impact in 2009 on our per-ton realizations of selling coal with a higher ash content, our realizations increased only slightly in 2010, due to the soft steam coal market and

Table of Contents

an unfavorable mix of customer contracts. Effective cost control in the region resulted in the higher per-ton operating margins in 2010, partially offset by the impact of the two outages at the Dugout Canyon mine in 2010.

**Central Appalachia** The moderate increase in sales volumes in 2010, when compared with 2009, resulted from the improvement in metallurgical coal demand, partially offset by weaker steam coal demand. We sold approximately 5.5 million of metallurgical-quality coal in 2010 compared to 2.1 million tons in 2009. Because metallurgical coal generally commands a higher price than steam coal, the increase had a favorable impact on our average realizations compared to 2009. The benefit from higher per-ton realizations in 2010, net of sales sensitive costs, drove the improvement in our operating margins over 2009.

Although our sales volumes improved over 2009, production in Central Appalachia was less than expected in the 4th quarter due to the geologic challenges at our Mountain Laurel longwall mine in December referenced in **Items Affecting the Comparability of Reported Results**.

**Net interest expense.** The following table summarizes our net interest expense for year ended December 31, 2010 and compares it with the information for the year ended December 31, 2009:

	<b>Year Ended December 31</b>		<b>Decrease in Net Income</b>	
	<b>2010</b>	<b>2009</b>	<b>\$</b>	<b>%</b>
(Amounts in thousands, except percentages)				
Interest expense	\$ (142,549)	\$ (105,932)	\$ (36,617)	(34.6)%
Interest income	2,449	7,622	(5,173)	(67.9)
	<b>\$ (140,100)</b>	<b>\$ (98,310)</b>	<b>\$ (41,790)</b>	<b>(42.5)%</b>

The increase in net interest expense in 2010 compared to 2009 is primarily due to an increase in outstanding senior notes due to the issuance of the 8.75% senior notes in the third quarter of 2009 to finance the acquisition of the Jacobs Ranch mining complex and the issuance of the 7.25% senior notes on August 9, 2010. The proceeds from the issuance 7.25% senior notes were used to redeem a portion of the 6.75% senior notes on September 8, 2010.

In 2009, we recorded interest income of \$6.1 million related to a black lung excise tax refund that we recognized in the fourth quarter of 2008.

**Other non-operating expense.** The following table summarizes our other non-operating expense for year ended December 31, 2010 and compares it with the information for the year ended December 31, 2009:

	<b>Year Ended December 31</b>		<b>Decrease in Net Income</b>	
	<b>2010</b>	<b>2009</b>	<b>\$</b>	<b>%</b>
(Amounts in thousands, except percentages)				
Loss on early extinguishment of debt	\$ (6,776)		\$ (6,776)	(100)%

# Edgar Filing: ARCH COAL INC - Form 10-K

Amounts reported as non-operating consist of income or expense resulting from our financing activities, other than interest costs. The loss on early extinguishment of debt relates to the redemption of \$500 million in principal amount of the 6.75% senior notes. The loss includes the payment of \$5.6 million of redemption premium and the write-off of \$3.3 million of unamortized debt financing costs, partially offset by the write-off of \$2.1 million of the original issue premium.

*Income taxes.* Our effective income tax rate is sensitive to changes in and the relationship between annual profitability and the deduction for percentage depletion. The following table summarizes our income taxes for year ended December 31, 2010 and compares it with the information for the year ended December 31, 2009:

	Year Ended December 31		Decrease in Net Income	
	2010	2009	\$	%
<b>(Amounts in thousands, except percentages)</b>				
Provision for (benefit from) income taxes	\$ 17,714	\$ (16,775)	\$ (34,489)	(205.6)%
	56			

Table of Contents

The income tax provision in 2010 includes a tax benefit of \$4.0 million related to the recognition of tax benefits based on settlements with taxing authorities.

***Year Ended December 31, 2009 Compared to Year Ended December 31, 2008***

*Summary.* Our results during 2009 when compared to 2008 were influenced primarily by lower sales volumes due to weak market conditions, a decrease in gains from our coal trading activities, a reduction in 2008 in our valuation allowance against deferred tax assets and higher interest expense.

*Revenues.* The following table summarizes information about coal sales during the year ended December 31, 2009 and compares it with the information for the year ended December 31, 2008:

	<b>Year Ended December 31</b>			<b>Decrease</b>	
	<b>2009</b>	<b>2008</b>	<b>Amount</b>		<b>%</b>
	<b>(Amounts in thousands, except per ton data and percentages)</b>				
Coal sales	\$ 2,576,081	\$ 2,983,806	\$ (407,725)		(13.7)%
Tons sold	126,116	139,595	(13,479)		(9.7)%
Coal sales realization per ton sold	\$ 20.43	\$ 21.37	\$ (0.94)		(4.4)%

Coal sales decreased in 2009 from 2008 primarily due to lower sales volumes in all operating regions, driven by weak market conditions. Average sales prices during 2009 were lower than during 2008 due primarily to a decrease in metallurgical sales volumes in our Central Appalachia region, which offset the impact of generally higher base pricing on steam coal. We have provided more information about the tons sold and the coal sales realizations per ton by operating segment under the heading Operating segment results.

*Costs, expenses and other.* The following table summarizes costs, expenses and other components of operating income for the year ended December 31, 2009 and compares it with the information for the year ended December 31, 2008:

	<b>Year Ended December 31</b>			<b>Increase (Decrease)</b>	
	<b>2009</b>	<b>2008</b>	<b>\$</b>		<b>%</b>
	<b>(Dollars in thousands)</b>				
Cost of coal sales	\$ 2,070,715	\$ 2,183,922	\$ 113,207		5.2%
Depreciation, depletion and amortization	301,608	293,553	(8,055)		(2.7)
Amortization of acquired sales contracts, net	19,623	(705)	(20,328)		N/A
Selling, general and administrative expenses	97,787	107,121	9,334		8.7
Change in fair value of coal derivatives and coal trading activities, net	(12,056)	(55,093)	(43,037)		(78.1)
Costs related to acquisition of Jacobs Ranch	13,726		(13,726)		(100.0)
Other operating income, net	(39,036)	(6,262)	32,774		523.4
Total	\$ 2,452,367	\$ 2,522,536	\$ 70,169		2.8%

*Cost of coal sales.* Our cost of coal sales decreased in 2009 from 2008 due to the lower sales volumes across all operating segments and a decrease in transportation costs due to a decrease in barge and export sales. We have provided more information about our operating segments under the heading **Operating segment results**.

*Depreciation, depletion and amortization.* When compared with 2008, higher depreciation and amortization costs in 2009 resulted from the acquisition of the Jacobs Ranch mining complex on October 1, 2009 and the amortization of development costs related to the seam at the West Elk mine where we commenced longwall production in the fourth quarter of 2008, partially offset by the impact of lower volume levels on depletion and amortization costs calculated on a units-of-production method. We have provided more information about our operating segments under the heading **Operating segment results** and our capital spending in the section entitled **Liquidity and Capital Resources**.

Table of Contents

*Amortization of acquired sales contracts, net.* The increase in the amortization of acquired sales contracts, net is the result of the acquisition of the Jacobs Ranch mining operation. The fair values of acquired sales contracts are amortized over the tons of coal shipped during the term of the contract.

*Selling, general and administrative expenses.* The decrease in selling, general and administrative expenses from 2008 to 2009 was due primarily to a decrease in incentive compensation costs of \$8.7 million and a decrease of \$4.6 million in costs associated with our deferred compensation plan, where amounts recognized are impacted by changes in the value of our common stock and changes in the value of the underlying investments. Partially offsetting the effect of the decrease in compensation-related costs were an increase in legal and other professional fees of \$2.4 million and the \$1.5 million expense in 2009 of our five-year pledge to a company participating in the research and development of technologies for capturing carbon dioxide emissions.

*Change in fair value of coal derivatives and coal trading activities, net.* Net gains relate to the net impact of our coal trading activities and the change in fair value of other coal derivatives that have not been designated as hedge instruments in a hedging relationship. Our coal trading function enabled us to take advantage of the significant price movements in the coal markets during 2008.

*Costs related to acquisition of Jacobs Ranch.* Costs we incurred during 2009 related to the acquisition of the Jacobs Ranch mining complex were expensed under new accounting rules we adopted in 2009.

*Other operating income, net.* The net increase is primarily the result of an increase in net income from bookouts (the offsetting of coal sales and purchase contracts) and contract settlements.

*Operating segment results.* The following table shows results by operating segment for the year ended December 31, 2009 and compares it with the information for the year ended December 31, 2008:

	Year Ended December 31			Increase (Decrease)	
	2009	2008		Amount	%
	(Amounts in thousands, except per ton data and percentages)				
<i>Powder River Basin</i>					
Tons sold	96,083	102,557		(6,474)	(6.3)%
Coal sales realization per ton sold <sup>(4)</sup>	\$ 12.43	\$ 11.30		\$ 1.13	10.0%
Operating margin per ton sold <sup>(5)</sup>	\$ 0.79	\$ 1.02		\$ (0.23)	(22.5)%
Adjusted EBITDA <sup>(6)</sup>	\$ 233,623	\$ 226,342		\$ 7,281	3.2%
<i>Western Bituminous</i>					
Tons sold	16,747	20,606		(3,859)	(18.7)%
Coal sales realization per ton sold <sup>(4)</sup>	\$ 29.11	\$ 27.46		\$ 1.65	6.0%
Operating margin per ton sold <sup>(5)</sup>	\$ 1.55	\$ 5.69		\$ (4.14)	(72.8)%
Adjusted EBITDA <sup>(6)</sup>	\$ 113,192	\$ 202,434		\$ (89,242)	(44.1)%
<i>Central Appalachia</i>					
Tons sold	13,286	16,432		(3,146)	(19.1)%
Coal sales realization per ton sold <sup>(4)</sup>	\$ 59.58	\$ 66.72		\$ (7.14)	(10.7)%
Operating margin per ton sold <sup>(5)</sup>	\$ 6.22	\$ 17.53		\$ (11.31)	(64.5)%
Adjusted EBITDA <sup>(6)</sup>	\$ 201,736	\$ 444,425		\$ (242,689)	(54.6)%

Edgar Filing: ARCH COAL INC - Form 10-K

- (4) Coal sales prices per ton exclude certain transportation costs that we pass through to our customers. We use these financial measures because we believe the amounts as adjusted better represent the coal sales prices we achieved within our operating segments. Since other companies may calculate coal sales prices per ton differently, our calculation may not be comparable to similarly titled measures used by those companies. For the year ended December 31, 2009, transportation costs per ton were \$0.11 for the Powder River Basin, \$3.18 for the Western Bituminous region and \$2.89 for Central Appalachia. For the year ended December 31, 2008, transportation costs per ton were \$0.03 for the Powder River Basin, \$4.54 for the Western Bituminous region and \$4.02 for Central Appalachia.
- (5) Operating margin per ton is calculated as coal sales revenues less cost of coal sales and depreciation, depletion and amortization, including amortization of acquired sales contracts, divided by tons sold.

Table of Contents

- (6) Adjusted EBITDA is defined as net income attributable to the Company before the effect of net interest expense, income taxes, depreciation, depletion and amortization and the amortization of acquired sales contracts. Adjusted EBITDA may also be adjusted for items that may not reflect the trend of future results. Segment Adjusted EBITDA is reconciled to net income at the end of this *Results of Operations* section.

*Powder River Basin* The decrease in sales volume in the Powder River Basin in 2009 when compared with 2008 was due to a decline in demand stemming from weak market conditions. At the Black Thunder mining complex, in response to these conditions, we reduced production and idled one dragline in the fourth quarter of 2008 and another dragline in May 2009, along with the related support equipment. This reduction was partially offset by the impact of the acquisition of the Jacobs Ranch mining operations on October 1, 2009. Increases in sales prices during 2009, when compared with 2008, primarily reflect higher pricing from contracts committed during 2008, when market conditions were more favorable, partially offset by the effect of lower pricing on market-index priced tons and the effect of lower sulfur dioxide allowance pricing. On a per-ton basis, operating margins in 2009 decreased compared to 2008 due to an increase in per-ton costs. The increase in annual per-ton costs, despite our cost containment efforts, resulted primarily from the effect of spreading fixed costs over lower volume levels; however, our per-ton operating costs improved in the fourth quarter of 2009, as a result of synergies achieved from the acquisition of the Jacobs Ranch mining operation.

*Western Bituminous* In the Western Bituminous region, we sold fewer tons in 2009 than in 2008 due to the weak market conditions as well as quality issues at the West Elk mining complex. In the first half of 2009, we encountered sandstone intrusions at the West Elk mining complex that resulted in a higher ash content in the coal produced, and declining coal demand had an impact on our efforts to market this coal. As a result of the weak market demand for this coal, we reduced our production levels at the mine. The detrimental impact on our per-ton realizations of selling coal with a higher ash content offset the beneficial impact of the roll-off of lower-priced legacy contracts in 2008. Lower per-ton operating margins during 2009 were the result of the West Elk quality issues and the lower production levels, however, per-ton costs decreased in the fourth quarter as the longwall advanced into more favorable geology, as expected, improving our margins.

*Central Appalachia* The decrease in sales volumes in 2009, when compared with 2008, was due to weaker market demand in 2009. In response to the weakened demand, we reduced our production in Central Appalachia by slowing the rate of advance of equipment, by shortening or eliminating shifts at several mining complexes, and by idling an underground mine and certain surface mining equipment at our Cumberland River mining complex in the second quarter of 2009. Economic conditions also adversely impacted demand and pricing for metallurgical coal, and lower per-ton realizations in 2009 compared to 2008 resulted from a decrease in our metallurgical coal sales volumes and pricing. We sold 2.1 million tons of metallurgical-quality coal in 2009 compared to 4.4 million tons in 2008. Because metallurgical coal generally commands a higher price than steam coal, the decrease had a detrimental impact on our average per-ton realizations. In addition to the lower per-ton realizations in 2009, our operating margins were also impacted by an increase in operating costs per ton in 2009 from 2008, due primarily to the lower production levels and the effect of spreading fixed costs over fewer tons.

*Net interest expense.* The following table summarizes our net interest expense for the year ended December 31, 2009 and compares it with the information for the year ended December 31, 2008:

Year Ended December 31		Decrease in Net Income	
2009	2008	\$	%
			(Dollars in thousands)

Edgar Filing: ARCH COAL INC - Form 10-K

Interest expense	\$ (105,932)	\$ (76,139)	\$ (29,793)	(39.1)%
Interest income	7,622	11,854	(4,232)	(35.7)
Total	\$ (98,310)	\$ (64,285)	\$ (34,025)	(52.9)%

The increase in interest expense in 2009 compared to 2008 was primarily due to the issuance of the 8.75% senior notes in July, 2009 and a decrease in capitalized interest costs. Interest costs capitalized were \$0.8 million during 2009, compared with \$11.7 million during 2008. For more information on our borrowing facilities and ongoing capital improvement and development projects, see the section entitled Liquidity and Capital Resources.

Table of Contents

During 2009 and 2008, we recorded interest income of \$6.1 million and \$10.3 million, respectively, related to a black lung excise tax refund.

*Income taxes.* Our effective income tax rate is sensitive to changes in the relationship between annual profitability and percentage depletion. The following table summarizes our income taxes for the year ended December 31, 2009 and compares it with information for the year ended December 31, 2008:

	<b>Year Ended December 31</b>		<b>Increase in Net Income</b>	
	<b>2009</b>	<b>2008</b>	<b>\$</b>	<b>%</b>
	<b>(Dollars in thousands)</b>			
Provision for (benefit from) income taxes	\$ (16,775)	\$ 41,774	\$ 58,549	140.2%

In 2009, our income taxes were impacted by decreased profitability. The income tax provision in 2008 included a \$58.0 million reduction in our valuation allowance against net operating loss and alternative minimum tax credit carryforwards that reduced our income tax provision.

***Reconciliation of Segment EBITDA to Net Income***

The discussion in *Results of Operations* in 2010, 2009 and 2008 includes references to our Adjusted EBITDA results. Adjusted EBITDA is defined as net income attributable to the Company before the effect of net interest expense, income taxes, depreciation, depletion and amortization and the amortization of acquired sales contracts. Adjusted EBITDA may also be adjusted for items that may not reflect the trend of future results. We believe that Adjusted EBITDA presents a useful measure of our ability to service and incur debt based on ongoing operations. Investors should be aware that our presentation of Adjusted EBITDA may not be comparable to similarly titled measures used by other companies. The table below shows how we calculate Adjusted EBITDA.

	<b>Year Ended December 31</b>		
	<b>2010</b>	<b>2009</b>	<b>2008</b>
Segment Adjusted EBITDA	\$ 788,741	\$ 548,551	\$ 873,201
Corporate and other Adjusted EBITDA	(64,622)	(89,890)	(119,964)
Adjusted EBITDA	724,119	458,661	753,237
Depreciation, depletion and amortization	(365,066)	(301,608)	(293,553)
Amortization of acquired sales contracts, net	(35,606)	(19,623)	705
Interest expense	(142,549)	(105,932)	(76,139)
Interest income	2,449	7,622	11,854
Loss on early extinguishment of debt	(6,776)		
Costs related to acquisition of Jacobs Ranch		(13,726)	
Income tax (expense) benefit	(17,714)	16,775	(41,774)
Net income attributable to Arch Coal	\$ 158,857	\$ 42,169	\$ 354,330

Corporate and other Adjusted EBITDA includes primarily selling, general and administrative expenses, income from our equity investments, change in fair value of coal derivatives and coal trading activities, net, and, in 2010, the gain on the Knight Hawk transaction.

### **Liquidity and Capital Resources**

Our primary sources of cash are coal sales to customers, borrowings under our credit facilities and other financing arrangements, and debt and equity offerings related to significant transactions. Excluding any significant mineral reserve acquisitions, we generally satisfy our working capital requirements and fund capital expenditures and debt-service obligations with cash generated from operations or borrowings under our credit facility, accounts receivable securitization or commercial paper programs. The borrowings under these arrangements are classified as current if the underlying credit facilities expire within one year or if, based on cash

Table of Contents

projections and management plans, we do not have the intent to replace them on a long-term basis. Such plans are subject to change based on our cash needs.

We believe that cash generated from operations and borrowings under our credit facilities or other financing arrangements will be sufficient to meet working capital requirements, anticipated capital expenditures and scheduled debt payments for at least the next several years. We manage our exposure to changing commodity prices for our non-trading, long-term coal contract portfolio through the use of long-term coal supply agreements. We enter into fixed price, fixed volume supply contracts with terms greater than one year with customers with whom we have historically had limited collection issues. Our ability to satisfy debt service obligations, to fund planned capital expenditures, to make acquisitions, to repurchase our common shares and to pay dividends will depend upon our future operating performance, which will be affected by prevailing economic conditions in the coal industry and financial, business and other factors, some of which are beyond our control.

During the year ended December 31, 2010, we generated record levels of operating cash flows which, when combined with control on capital spending, enabled us to pay down our borrowings under our lines of credit. At December 31, 2010, our debt-to-capitalization ratio (defined as total debt divided by the sum of total debt and equity) was 42%, a decrease of 4 percentage points from December 31, 2009, and our availability under lines of credit was approximately \$970 million.

On August 9, 2010, we issued \$500.0 million in aggregate principal amount of 7.25% senior unsecured notes due in 2020 at par. We used the net proceeds from the offering and cash on hand to fund the redemption on September 8, 2010 of \$500.0 million aggregate principal amount of our subsidiary Arch Western Finance LLC's outstanding 6.75% senior notes due in 2013 at a redemption price of 101.125%. As a result of the refinancing, we reduced our 2013 principal maturities by more than half.

On July 31, 2009, we sold 17.0 million shares of our common stock at a public offering price of \$17.50 per share pursuant to an automatically effective shelf registration statement on Form S-3 and prospectus previously filed and issued \$600 million in aggregate principal amount of 8.75% senior unsecured notes due 2016 at an initial issue price of 97.464% of face amount. On August 6, 2009, we issued an additional 2.55 million shares of our common stock under the same terms and conditions to cover underwriters' over-allotments. Total net proceeds from these transactions were \$896.8 million. We used the net proceeds from these transactions primarily to finance the purchase of the Jacobs Ranch mining complex.

Our indebtedness consisted of the following at December 31, 2010 and 2009:

	December 31	
	2010	2009
	(In thousands)	
Commercial paper	\$ 56,904	\$ 49,453
Indebtedness to banks under credit facilities	204,000	
6.75% senior notes (\$450.0 million and \$950.0 million face value, respectively) due July 1, 2013	451,618	954,782
8.75% senior notes (\$600.0 million face value) due August 1, 2016	587,126	585,441
7.25% senior notes (\$500.0 million face value) due October 1, 2020	500,000	
Other	14,093	14,011
	1,609,741	1,807,687

***Senior Notes***

Our subsidiary, Arch Western Finance LLC, has outstanding an aggregate principal amount of \$450.0 million of 6.75% senior notes due on July 1, 2013, subsequent to the redemption discussed previously. Interest is payable on the notes on January 1 and July 1 of each year. The senior notes are secured by an intercompany note from Arch Coal to Arch Western. The indenture under which the senior notes were issued contains certain restrictive covenants that limit Arch Western's ability to, among other things, incur additional debt, sell or transfer assets and make certain investments. The redemption price of the notes, reflected as a

**Table of Contents**

percentage of the principal amount, is: 101.125% for notes redeemed prior to July 1, 2011 and 100% for notes redeemed on or after July 1, 2011.

We have outstanding an aggregate principal amount of \$600.0 million of 8.75% senior notes due 2016 that were issued at an initial issue price of 97.464% of face amount. Interest is payable on the 8.75% senior notes on February 1 and August 1 of each year. At any time on or after August 1, 2013, we may redeem some or all of the notes. The redemption price, reflected as a percentage of the principal amount, is: 104.375% for notes redeemed between August 1, 2013 and July 31, 2014; 102.188% for notes redeemed between August 1, 2014 and July 31, 2015; and 100% for notes redeemed on or after August 1, 2015. In addition, prior to August 1, 2012, at any time and on one or more occasions, we may redeem an aggregate principal amount of senior notes not to exceed 35% of the original aggregate principal amount of the senior notes outstanding with the proceeds of one or more public equity offerings, at a redemption price equal to 108.750%.

Interest is payable on the 7.25% senior notes due 2020 on April 1 and October 1 of each year, commencing April 1, 2011. The notes are guaranteed by most of our subsidiaries, except for Arch Western and its subsidiaries and Arch Receivable Company, LLC. At any time on or after October 1, 2015, we may redeem some or all of the notes. The redemption price reflected as a percentage of the principal amount is: 103.625% for notes redeemed between October 1, 2015 and September 30, 2016; 102.417% for notes redeemed between October 1, 2016 and September 30, 2017; 101.208% for notes redeemed between October 1, 2017 and September 30, 2018; and 100% for notes redeemed on or after October 1, 2018. In addition, prior to October 1, 2013, at any time and on one or more occasions, we may redeem an aggregate principal amount of senior notes not to exceed 35% of the original aggregate principal amount of the senior notes outstanding with the proceeds of one or more public equity offerings, at a redemption price equal to 107.250%.

The 7.25% and 8.75% senior notes are guaranteed by most of our subsidiaries, except for Arch Western and its subsidiaries and Arch Receivable Company, LLC. Our ability to incur additional debt; pay dividends and make distributions or repurchase stock; make investments; create liens; issue and sell capital stock of subsidiaries; sell assets; enter into restrictions affecting the ability of restricted subsidiaries to make distributions, loans or advances to the Company; engage in transactions with affiliates; enter into sale and leasebacks; and merge or consolidate or transfer and sell assets is limited under the agreements, depending on certain financial measurements.

We have filed a universal shelf registration statement on Form S-3 with the SEC that allows us to offer and sell from time to time an unlimited amount of unsecured debt securities consisting of notes, debentures, and other debt securities, common stock, preferred stock, warrants, or units. Related proceeds could be used for general corporate purposes, including repayment of other debt, capital expenditures, possible acquisitions and any other purposes that may be stated in any related prospectus supplement.

***Lines of Credit***

Our secured revolving credit facility matures March 31, 2013 and provides borrowing capacity of \$860.0 million until June 23, 2011, when it decreases to \$762.5 million. On March 19, 2010, we entered into an amendment of the revolving credit facility that allows for us to make intercompany loans to our subsidiary, Arch Western Resources LLC ( AWR ), without drawing down the existing loan from Arch Western to us. We had no borrowings outstanding under the revolving credit facility at December 31, 2010 and \$120.0 million outstanding at December 31, 2009. Borrowings under the credit facility bear interest at a floating rate based on LIBOR determined by reference to our leverage ratio, as calculated in accordance with the credit agreement, as amended. Our revolving credit facility is secured by substantially all of our assets, as well as our ownership interests in substantially all of our subsidiaries, except our ownership interests in AWR. Financial covenants contained in our revolving credit facility, as amended, consist of a maximum leverage ratio, a maximum senior secured leverage ratio and a minimum interest coverage ratio.

## Edgar Filing: ARCH COAL INC - Form 10-K

The leverage ratio requires that we not permit the ratio of total net debt (as defined in the facility) at the end of any calendar quarter to EBITDA (as defined in the facility) for the four quarters then ended to exceed a specified amount. The interest coverage ratio requires that we not permit the ratio of EBITDA (as defined in the facility) at the end of any calendar quarter to interest expense for the four quarters then ended to be less than a specified amount. The senior secured leverage ratio requires that we not permit the ratio of total net senior secured debt (as defined in the facility) at the end of any

Table of Contents

calendar quarter to EBITDA (as defined in the facility) for the four quarters then ended to exceed a specified amount. We were in compliance with all financial covenants at December 31, 2010.

We are party to a \$175.0 million accounts receivable securitization program whereby eligible trade receivables are sold, without recourse, to a multi-seller, asset-backed commercial paper conduit. The credit facility supporting the borrowings under the program is subject to renewal annually and expires January 30, 2012. Under the terms of the program, eligible trade receivables consist of trade receivables generated by our operating subsidiaries. Actual borrowing capacity is based on the allowable amounts of accounts receivable as defined under the terms of the agreement. On February 24, 2010, we entered into an amendment of the program that revised certain terms to expand the pool of receivables included in the program. We had no borrowings outstanding under the program at December 31, 2010 and had \$84.0 million outstanding at December 31, 2009. We had letters of credit outstanding under the securitization program of \$65.5 million as of December 31, 2010. Although the participants in the program bear the risk of non-payment of purchased receivables, we have agreed to indemnify the participants with respect to various matters. The participants under the program will be entitled to receive payments reflecting a specified discount on amounts funded under the program, including drawings under letters of credit, calculated on the basis of the base rate or commercial paper rate, as applicable. We pay facility fees, program fees and letter of credit fees (based on amounts of outstanding letters of credit) at rates that vary with our leverage ratio. Under the program, we are subject to certain affirmative, negative and financial covenants customary for financings of this type, including restrictions related to, among other things, liens, payments, merger or consolidation and amendments to the agreements underlying the receivables pool. A termination event would permit the administrator to terminate the program and enforce any and all rights, subject to cure provisions, where applicable. Additionally, the program contains cross-default provisions, which would allow the administrator to terminate the program in the event of non-payment of other material indebtedness when due and any other event which results in the acceleration of the maturity of material indebtedness.

***Commercial Paper***

Our commercial paper placement program provides short-term financing at rates that are generally lower than the rates available under our revolving credit facility. Under the program, as amended, we may sell interest-bearing or discounted short-term unsecured debt obligations with maturities of no more than 270 days. The commercial paper placement program is supported by a line of credit that is subject to renewal annually and expires January 30, 2012. On March 25, 2010, we entered into an amendment to our commercial paper program which decreased the maximum aggregate principal amount of the program to \$75 million from \$100 million. We had commercial paper outstanding of \$56.9 million at December 31, 2010 and \$49.5 million at December 31, 2009. The current credit market has affected our ability to issue commercial paper, but we believe that the availability under our credit facilities is sufficient to satisfy our liquidity needs.

The following is a summary of cash provided by or used in each of the indicated types of activities during the past three years:

	<b>Year Ended December 31</b>		
	<b>2010</b>	<b>2009</b>	<b>2008</b>
	(Dollars in thousands)		
Cash provided by (used in):			
Operating activities	\$ 697,147	\$ 382,980	\$ 679,137
Investing activities	(389,129)	(1,130,382)	(527,545)
Financing activities	(275,563)	737,891	(86,023)

Cash provided by operating activities increased substantially in 2010 compared to 2009, due to increased profits during the year, driven largely by higher sales volumes as discussed in [Results of Operations](#), as well as a benefit in 2010 from the timing of payments on in accounts and production taxes payable. Cash provided by operating activities decreased in 2009 compared to 2008, primarily as a result of a decrease in our profitability in 2009 when compared with 2008's record profitability, due to weak coal markets.

Cash used in investing activities in 2010 was \$741.3 million less than in 2009, due to the acquisition of the Jacobs Ranch mining operations in 2009 for \$768.8 million. In 2010, we made cash advances to and

**Table of Contents**

investments in equity-method investees totaling \$46.2 million, compared with \$10.9 million in 2009. This included \$26.6 million to increase our ownership interest in Knight Hawk to 49% and \$9.8 million to acquire a 35% interest in Tenaska Trailblazer Partners, LLC, ( Tenaska ) the developer of the Trailblazer Energy Center. The power plant, fueled by low sulfur coal, will capture and store carbon dioxide for enhanced oil recovery applications. Capital expenditures were \$314.7 million during 2010, slightly less than during 2009. During 2010, we made payments of \$118.2 million on our Montana leases and spent \$26.0 million on the new preparation plant at the West Elk mine that we mentioned previously.

We used \$602.8 million more cash in investing activities in 2009 compared to the amount used in 2008, primarily due to the acquisition of the Jacobs Ranch mining operations, partially offset by a \$174.2 million reduction in capital expenditures. During 2009, in addition to the last payment of \$122.0 million on the Little Thunder federal coal lease, we spent approximately \$19.0 million on additional longwall equipment at the West Elk mining complex in Colorado and approximately \$38.0 million on a new shovel and haul trucks at the Black Thunder mine in Wyoming. During 2008, in addition to a payment of \$122.0 million on the Little Thunder lease, we spent approximately \$86.5 million on the construction of the loadout facility at our Black Thunder mine in Wyoming and approximately \$132.1 million for the transition to the new reserve area at our West Elk mining complex.

Cash used in financing activities was \$275.6 million during 2010, compared to cash provided by financing activities of \$737.9 million during 2009. As mentioned previously, in 2010 we used the net proceeds from the offering of the 7.25% notes and cash on hand to fund the redemption \$500.0 million aggregate principal amount of our outstanding 6.75% senior notes due in 2013 at a redemption price of 101.125%. We also repaid approximately \$196.6 million under our various financing arrangements during 2010. We paid financing costs of \$12.7 million in 2010.

In 2009, we sold 19.55 million shares of our common stock at a public offering price of \$17.50 per share and issued \$600 million in aggregate principal amount of 8.750% senior unsecured notes due 2016. Total net proceeds from these transactions were \$896.8 million. We used the net proceeds from these transactions primarily to finance the purchase of the Jacobs Ranch mining complex. As a result of these transactions, we were able to reduce outstanding borrowings under credit facilities, repaying approximately \$85.8 million during 2009. We paid financing costs of \$29.6 million in 2009.

Cash used in financing activities was \$86.0 million during 2008. In 2008, we repurchased 1.5 million shares of common stock under our share repurchase program at an average price of \$35.62 per share.

We paid dividends of \$63.4 million in 2010, \$55.0 million in 2009 and \$48.8 million in 2008.

### **Ratio of Earnings to Fixed Charges**

The following table sets forth our ratios of earnings to combined fixed charges and preference dividends for the periods indicated:

	<b>Year Ended December 31</b>				
	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
Ratio of earnings to combined fixed charges and preference dividends <sup>(1)</sup>	2.17x	1.26x	4.91x	2.37x	3.86x

(1)

Edgar Filing: ARCH COAL INC - Form 10-K

Earnings consist of income from operations before income taxes and are adjusted to include only distributed income from affiliates accounted for on the equity method and fixed charges (excluding capitalized interest). Fixed charges consist of interest incurred on indebtedness, the portion of operating lease rentals deemed representative of the interest factor and the amortization of debt expense.

Table of Contents**Contractual Obligations**

The following is a summary of our significant contractual obligations as of December 31, 2010:

	Payments Due by Period				
	2011	2012-2013	2014-2015	After 2016	Total
	(Dollars in thousands)				
Long-term debt, including related interest	\$ 190,366	\$ 673,063	\$ 177,500	\$ 1,302,813	\$ 2,343,742
Operating leases	31,862	53,109	37,496	18,131	140,598
Coal lease rights	60,881	82,368	44,727	69,412	257,388
Coal purchase obligations	86,029	119,949	135,220	134,931	476,129
Unconditional purchase obligations	149,039	16,337	17,332	48,089	230,797
Total contractual obligations	\$ 518,177	\$ 944,826	\$ 412,275	\$ 1,573,376	\$ 3,448,654

Our maturities of debt in 2011 include amounts borrowed that are supported by credit facilities that have a term of less than one year and amounts borrowed under credit facilities with terms longer than one year that we do not intend to refinance on a long-term basis, based on cash projections. The related interest on long-term debt was calculated using rates in effect at December 31, 2010 for the remaining term of outstanding borrowings.

Coal lease rights represent non-cancelable royalty lease agreements, as well as lease bonus payments due.

Our coal purchase obligations include purchase obligations in the over-the-counter market, as well as unconditional purchase obligations with coal suppliers. Additionally, they include coal purchase obligations incurred with the sale of certain Central Appalachia operations in 2005 to supply ongoing customer sales commitments.

Unconditional purchase obligations include open purchase orders and other purchase commitments, which have not been recognized as a liability. The commitments in the table above relate to contractual commitments for the purchase of materials and supplies, payments for services and capital expenditures.

The table above excludes our asset retirement obligations. Our consolidated balance sheet reflects a liability of \$334.3 million for asset retirement obligations that arise from SMCRA and similar state statutes, which require that mine property be restored in accordance with specified standards and an approved reclamation plan. Asset retirement obligations are recorded at fair value when incurred and accretion expense is recognized through the expected date of settlement. Determining the fair value of asset retirement obligations involves a number of estimates, as discussed in the section entitled **Critical Accounting Policies**, including the timing of payments to satisfy the obligations. The timing of payments to satisfy asset retirement obligations is based on numerous factors, including mine closure dates. You should see the notes to our consolidated financial statements for more information about our asset retirement obligations.

The table above also excludes certain other obligations reflected in our consolidated balance sheet, including estimated funding for pension and postretirement benefit plans and worker's compensation obligations. The timing of contributions to our pension plans varies based on a number of factors, including changes in the fair value of plan assets and actuarial assumptions. You should see the section entitled **Critical Accounting Policies** for more

## Edgar Filing: ARCH COAL INC - Form 10-K

information about these assumptions. In order to achieve a desired funded status, we expect to make contributions of \$37.6 million to our pension plans in 2011. You should see the notes to our consolidated financial statements for more information about the amounts we have recorded for workers' compensation and pension and postretirement benefit obligations.

The table above excludes future contingent payments of up to \$85.9 million related to development financing for certain of our equity investees. Our obligation to make these payments, as well as the timing of any payments required, is contingent upon a number of factors, including project development progress, receipt of permits and the obtaining of construction financing.

Table of Contents**Off-Balance Sheet Arrangements**

In the normal course of business, we are a party to certain off-balance sheet arrangements. These arrangements include guarantees, indemnifications, financial instruments with off-balance sheet risk, such as bank letters of credit and performance or surety bonds. Liabilities related to these arrangements are not reflected in our consolidated balance sheets, and we do not expect any material adverse effects on our financial condition, results of operations or cash flows to result from these off-balance sheet arrangements.

We use a combination of surety bonds, corporate guarantees (e.g., self bonds) and letters of credit to secure our financial obligations for reclamation, workers' compensation, coal lease obligations and other obligations as follows as of December 31, 2010:

	<b>Reclamation Obligations</b>	<b>Lease Obligations</b>	<b>Workers Compensation Obligations</b>	<b>Other</b>	<b>Total</b>
	(Dollars in thousands)				
Self bonding	\$ 406,203	\$	\$	\$	\$ 406,203
Surety bonds	213,600	50,848	12,200	25,060	301,708
Letters of credit			50,963	14,527	65,490

We have agreed to continue to provide surety bonds and letters of credit for the reclamation and retiree healthcare obligations of the properties we sold to Magnum. If the surety bonds and letters of credit related to the reclamation obligations are not replaced by Magnum within a specified period of time, Magnum must post a letter of credit in favor of the Company in the amounts of the reclamation obligations. The surety bonding amounts are mandated by the state and are not directly related to the estimated cost to reclaim the properties. Patriot Coal Corporation acquired Magnum in July 2008, and has posted letters of credit in the Company's favor for \$32.7 million. At December 31, 2010, we had \$91.4 million of surety bonds related to properties sold to Magnum, which are included in the table.

Magnum also acquired certain coal supply contracts with customers who have not consented to the assignment of the contract to Magnum. We have committed to purchase coal from Magnum to sell to those customers at the same price we are charging the customers for the sale. In addition, certain contracts have been assigned to Magnum, but we have guaranteed Magnum's performance under the contracts. The longest of the coal supply contracts extends to the year 2017. If Magnum is unable to supply the coal for these coal sales contracts then we would be required to purchase coal on the open market or supply contracts from our existing operations. At market prices effective at December 31, 2010, the cost of purchasing 11.5 million tons of coal to supply the contracts that have not been assigned over their duration would exceed the sales price under the contracts by approximately \$394.7 million, and the cost of purchasing 1.5 million tons of coal to supply the assigned and guaranteed contracts over their duration would exceed the sales price under the contracts by approximately \$32.4 million. We do not believe that it is probable that we would have to purchase replacement coal. If we would have to perform under these guarantees, it could potentially have a material adverse effect on our business, results of operations and financial condition.

In connection with the acquisition of the coal operations of ARCO and the simultaneous combination of the acquired ARCO operations and our Wyoming operations into the Arch Western joint venture, we agreed to indemnify the other member of Arch Western against certain tax liabilities in the event that such liabilities arise prior to June 1, 2013 as a result of certain actions taken, including the sale or other disposition of certain properties of Arch Western, the repurchase of certain equity interests in Arch Western by Arch Western or the reduction under certain circumstances of indebtedness incurred by Arch Western in connection with the acquisition. If we were to become liable, the

## Edgar Filing: ARCH COAL INC - Form 10-K

maximum amount of potential future tax payments was \$31.0 million at December 31, 2010. Since the indemnification is dependent upon the initiation of activities within our control and we do not intend to initiate such activities, it is remote that we will become liable for any obligation related to this indemnification. However, if such indemnification obligation were to arise, it could potentially have a material adverse effect on our business, results of operations and financial condition.

**Table of Contents****Critical Accounting Policies**

We prepare our financial statements in accordance with accounting principles that are generally accepted in the United States. The preparation of these financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses as well as the disclosure of contingent assets and liabilities. Management bases our estimates and judgments on historical experience and other factors that are believed to be reasonable under the circumstances. Additionally, these estimates and judgments are discussed with our audit committee on a periodic basis. Actual results may differ from the estimates used under different assumptions or conditions. We have provided a description of all significant accounting policies in the notes to our consolidated financial statements. We believe that of these significant accounting policies, the following may involve a higher degree of judgment or complexity:

***Derivative Financial Instruments***

The Company generally utilizes derivative instruments to manage exposures to commodity prices. Additionally, the Company may hold certain coal derivative instruments for trading purposes. Derivative financial instruments are recognized in the balance sheet at fair value. Certain coal contracts may meet the definition of a derivative instrument, but because they provide for the physical purchase or sale of coal in quantities expected to be used or sold by the Company over a reasonable period in the normal course of business, they are not recognized on the balance sheet.

Certain derivative instruments are designated as the hedge instrument in a hedging relationship. In a fair value hedge, we hedge the risk of changes in the fair value of a firm commitment, typically a fixed-price coal sales contract. Changes in both the hedged firm commitment and the fair value of a derivative used as a hedge instrument in a fair value hedge are recorded in earnings. In a cash flow hedge, we hedge the risk of changes in future cash flows related to a forecasted purchase or sale. Changes in the fair value of the derivative instrument used as a hedge instrument in a cash flow hedge are recorded in other comprehensive income. Amounts in other comprehensive income are reclassified to earnings when the hedged transaction affects earnings and are classified in a manner consistent with the transaction being hedged.

Any ineffective portion of a hedge is recognized immediately in earnings. Ineffectiveness was insignificant for the years ended December 31, 2010 and 2009.

We formally document all relationships between hedging instruments and hedged items, as well as our risk management objectives for undertaking various hedge transactions. We evaluate the effectiveness of our hedging relationships both at the hedge inception and on an ongoing basis.

***Asset Retirement Obligations***

Our asset retirement obligations arise from SMCRA and similar state statutes, which require that mine property be restored in accordance with specified standards and an approved reclamation plan. Significant reclamation activities include reclaiming refuse and slurry ponds, reclaiming the pit and support acreage at surface mines, and sealing portals at deep mines. Our asset retirement obligations are initially recorded at fair value, or the amount at which the obligations could be settled in a current transaction between willing parties. This involves determining the present value of estimated future cash flows on a mine-by-mine basis based upon current permit requirements and various estimates and assumptions, including estimates of disturbed acreage, reclamation costs and assumptions regarding productivity. We estimate disturbed acreage based on approved mining plans and related engineering data. Since we plan to use internal resources to perform the majority of our reclamation activities, our estimate of reclamation costs involves estimating third-party profit margins, which we base on our historical experience with contractors that perform certain types of reclamation activities. We base productivity assumptions on historical experience with the

## Edgar Filing: ARCH COAL INC - Form 10-K

equipment that we expect to utilize in the reclamation activities. In order to determine fair value, we discount our estimates of cash flows to their present value. We base our discount rate on the rates of treasury bonds with maturities similar to expected mine lives, adjusted for our credit standing. In 2009, we added \$75.1 million to our liability for asset retirement obligations as a result of the acquisition of the Jacobs Ranch mining complex.

**Table of Contents**

Accretion expense is recognized on the obligation through the expected settlement date. Accretion expense was \$26.6 million in 2010 and \$23.4 million in 2009. On at least an annual basis, we review our entire reclamation liability and make necessary adjustments for permit changes as granted by state authorities, changes in the timing of reclamation activities, and revisions to cost estimates and productivity assumptions, to reflect current experience. Adjustments to the liability resulting from changes in estimates were an increase in the liability of \$8.9 million in 2010 and a decrease in the liability of \$43.7 million in 2009. The 2009 reduction in the liability resulted from changes to the Black Thunder mine's pit configuration upon the integration of the Jacobs Ranch mining operations. Any difference between the recorded amount of the liability and the actual cost of reclamation will be recognized as a gain or loss when the obligation is settled. We expect our actual cost to reclaim our properties will be less than the expected cash flows used to determine the asset retirement obligation. At December 31, 2010, our balance sheet reflected asset retirement obligation liabilities of \$343.1 million, including amounts classified as a current liability. As of December 31, 2010, we estimate the aggregate undiscounted cost of final mine closures to be approximately \$682.5 million.

***Goodwill***

Goodwill represents the excess of the purchase price over the fair value assigned to the net tangible and identifiable intangible assets acquired in a business combination. Goodwill is tested for impairment annually as of the beginning of the fourth quarter, or when circumstances indicate a possible impairment may exist. Impairment testing is performed at a reporting unit level, which is our Black Thunder mining complex. An impairment loss generally would be recognized when the carrying amount of the reporting unit exceeds the fair value of the reporting unit, with the fair value of the reporting unit determined using a discounted cash flow (DCF) analysis. A number of significant assumptions and estimates are involved in the application of the DCF analysis to forecast operating cash flows, including the discount rate, the internal rate of return, and projections of selling prices and costs to produce. Management considers historical experience and all available information at the time the fair values of its reporting units are estimated.

***Stock-Based Compensation***

The compensation cost of all stock-based awards is determined based on the grant-date fair value of the award, and is recognized in income over the requisite service period (typically the vesting period of the award). The grant-date fair value of option awards is determined using a Black-Scholes option pricing model. For awards paid out in a combination of cash and stock, the cash portion of the plan is accounted for as a liability, based on the estimated payout under the awards. The stock portion is recorded utilizing the grant-date fair value of the award, based on a lattice model valuation. Compensation cost for an award with performance conditions is accrued if it is probable that the conditions will be met.

***Employee Benefit Plans***

We have non-contributory defined benefit pension plans covering certain of our salaried and hourly employees. Benefits are generally based on the employee's age and compensation. We fund the plans in an amount not less than the minimum statutory funding requirements or more than the maximum amount that can be deducted for federal income tax purposes. We contributed cash of \$17.3 million in 2010 and \$18.8 million in 2009 to the plans. The actuarially-determined funded status of the defined benefit plans is reflected in the balance sheet.

The calculation of our net periodic benefit costs (pension expense) and benefit obligation (pension liability) associated with our defined benefit pension plans requires the use of a number of assumptions that we deem to be critical accounting estimates. Changes in these assumptions can result in different pension expense and liability amounts, and actual experience can differ from the assumptions.

The expected long-term rate of return on plan assets is an assumption reflecting the average rate of earnings expected on the funds invested or to be invested to provide for the benefits included in the projected benefit obligation. We establish the expected long-term rate of return at the beginning of each fiscal year based upon historical returns and projected returns on the underlying mix of invested assets. The pension plan's investment targets are 65% equity, 30% fixed income securities and 5% cash. Investments are

**Table of Contents**

rebalanced on a periodic basis to approximate these targeted guidelines. The long-term rate of return assumption used to determine pension expense was 8.5% for 2010 and 2009. The long-term rate of return assumptions are less than the plan's actual life-to-date returns. Any difference between the actual experience and the assumed experience is recorded in other comprehensive income and amortized into earnings in the future. The impact of lowering the expected long-term rate of return on plan assets 0.5% for 2010 would have been an increase in expense of approximately \$1.1 million.

The discount rate represents our estimate of the interest rate at which pension benefits could be effectively settled. Assumed discount rates are used in the measurement of the projected, accumulated and vested benefit obligations and the service and interest cost components of the net periodic pension cost. In estimating that rate, rates of return on high-quality fixed-income debt instruments are required. We utilize a bond portfolio model that includes bonds that are rated AA or higher with maturities that match the expected benefit payments under the plan. The discount rate used to determine pension expense was 5.97% for 2010 and 6.85% for 2009. The impact of lowering the discount rate 0.5% for 2010 would have been an increase in expense of approximately \$3.6 million.

The differences generated from changes in assumed discount rates and returns on plan assets are amortized into earnings over a five-year period, which represents the average amount of time before participants vest in their benefits.

For the measurement of our 2010 year-end pension obligation and pension expense for 2011, we used a discount rate of 5.71%.

We also currently provide certain postretirement medical and life insurance coverage for eligible employees. Generally, covered employees who terminate employment after meeting eligibility requirements are eligible for postretirement coverage for themselves and their dependents. The salaried employee postretirement benefit plans are contributory, with retiree contributions adjusted periodically, and contain other cost-sharing features such as deductibles and coinsurance. During 2009, we notified participants of the retiree medical plan of a plan change increasing the retirees' responsibility for medical costs. Our current funding policy is to fund the cost of all postretirement benefits as they are paid. We account for our other postretirement benefits in accordance with our overall defined benefit plans policy and require that the actuarially-determined funded status of the plans be recorded in the balance sheet.

Actuarial assumptions are required to determine the amounts reported as obligations and costs related to the postretirement benefit plan. The discount rate assumption reflects the rates available on high-quality fixed-income debt instruments at year-end and is calculated in the same manner as discussed above for the pension plan. The discount rate used to calculate the postretirement benefit expense was 5.67% for 2010. The 2009 plan change referenced above resulted in a remeasurement of the postretirement benefit obligation, which included a decrease in the discount rate from 6.85% to 5.68%. The remeasurement resulted in a decrease in the liability of \$21.0 million, with a corresponding increase to other comprehensive income, and will result in future reductions in costs under the plan.

Had the discount rate been lowered by 0.5% in 2010, we would have incurred additional expense of \$0.2 million.

For the measurement of our year-end other postretirement obligation for 2010 and postretirement expense for 2011, we used a discount rate of 5.23%.

### ***Income Taxes***

## Edgar Filing: ARCH COAL INC - Form 10-K

We provide for deferred income taxes for temporary differences arising from differences between the financial statement and tax basis of assets and liabilities existing at each balance sheet date using enacted tax rates expected to be in effect when the related taxes are expected to be paid or recovered. We initially recognize the effects of a tax position when it is more than 50 percent likely, based on the technical merits, that the position will be sustained upon examination, including resolution of the related appeals or litigation processes, if any. Our determination of whether or not a tax position has met the recognition threshold considers the facts, circumstances, and information available at the reporting date. A valuation allowance may be recorded to reflect

Table of Contents

the amount of future tax benefits that management believes are not likely to be realized. We reassess our ability to realize our deferred tax assets annually in the fourth quarter or when circumstances indicate that the ability to realize deferred tax assets has changed. In determining the appropriate valuation allowance, we take into account expected future taxable income and available tax planning strategies. If future taxable income is lower than expected or if expected tax planning strategies are not available as anticipated, we may record additional valuation allowance through income tax expense in the period such determination is made.

**ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.**

We manage our commodity price risk for our non-trading, long-term coal contract portfolio through the use of long-term coal supply agreements, and to a limited extent, through the use of derivative instruments. At December 31, 2010, our commitments for 2011 and 2012 are as follows:

(Tons in millions)	2011		2012	
	Tons	Price	Tons	Price
<i>Powder River Basin</i>				
Committed, priced	98.1	\$ 13.52	59.4	\$ 13.99
Committed, unpriced	7.1		10.2	
<i>Western Bituminous</i>				
Committed, priced	17.1	\$ 32.13	9.9	\$ 35.46
<i>Central Appalachia</i>				
Committed, priced (Coking, PCI)	3.8	\$ 105.28	0.2	\$ 99.00
Committed, priced (Steam)	6.4	\$ 65.97	0.3	\$ 58.30
Committed, unpriced (Steam)			1.2	

We are exposed to commodity price risk in our coal trading activities, which represents the potential future loss that could be caused by an adverse change in the market value of coal. Our coal trading portfolio included forward, swap and put and call option contracts at December 31, 2010. With respect to our coal trading portfolio at December 31, 2010, the potential for loss of future earnings resulting from changing coal prices was insignificant. The estimated future realization of the value of the trading portfolio of \$10.4 million is 57% in 2011 and 43% in 2012.

We monitor and manage market price risk for our trading activities with a variety of tools, including Value at Risk (VaR), position limits, management alerts for mark to market monitoring and loss limits, scenario analysis, sensitivity analysis and review of daily changes in market dynamics. Management believes that presenting high, low, end of year and average VaR is the best available method to give investors insight into the level of commodity risk of our trading positions. Illiquid positions, such as long-dated trades that are not quoted by brokers or exchanges, are not included in VaR.

VaR is a statistical one-tail confidence interval and down side risk estimate that relies on recent history to estimate how the value of the portfolio of positions will change if markets behave in the same way as they have in the recent past. While presenting VaR will provide a similar framework for discussing risk across companies, VaR estimates from two independent sources are rarely calculated in the same way. Without a thorough understanding of how each VaR model was calculated, it would be difficult to compare two different VaR calculations from different sources. The level of confidence is 95%. The time across which these possible value changes are being estimated is through the end of the next business day. A closed-form delta-neutral method used throughout the finance and energy sectors is employed to calculate this VaR. VaR is back tested to verify usefulness.

## Edgar Filing: ARCH COAL INC - Form 10-K

On average, portfolio value should not fall more than VaR on 95 out of 100 business days. Conversely, portfolio value declines of more than VaR should be expected, on average, 5 out of 100 business days. When more value than VaR is lost due to market price changes, VaR is not representative of how much value beyond VaR will be lost.

During the year ended December 31, 2010, VaR ranged from under \$0.1 million to \$1.1 million. The linear mean of each daily VaR was \$0.5 million. The final VaR at December 31, 2010 was \$1.0 million.

**Table of Contents**

We are also exposed to the risk of fluctuations in cash flows related to our purchase of diesel fuel. We use approximately 55 million to 65 million gallons of diesel fuel annually in our operations. We enter into forward physical purchase contracts, as well as heating oil swaps and options, to reduce volatility in the price of diesel fuel for our operations. At December 31, 2010, the Company had protected the price of approximately 61% of its expected purchases for fiscal year 2011, mostly through the use of the derivative instruments noted above. Since the changes in the price of heating oil are highly correlated to changes in the price of the hedged diesel fuel purchases, the heating oil swaps and purchased call options qualify for cash flow hedge accounting. Accordingly, changes in the fair value of the derivatives are recorded through other comprehensive income, with any ineffectiveness recognized immediately in income. At December 31, 2010, a \$0.25 per gallon decrease in the price of heating oil would result in an approximate \$3.3 million increase in our expense related to the heating oil derivatives, which, if realized, would be offset by a decrease in the cost of our physical diesel purchases.

We are exposed to market risk associated with interest rates due to our existing level of indebtedness. At December 31, 2010, of our \$1.6 billion principal amount of debt outstanding, \$56.9 million of outstanding borrowings have interest rates that fluctuate based on changes in the market rates. A one percentage point increase in the interest rates related to these borrowings would result in an annualized increase in interest expense of \$0.6 million, based on borrowing levels at December 31, 2010.

Table of Contents

**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.**

The consolidated financial statements and consolidated financial statement schedule of Arch Coal, Inc. and subsidiaries are included in this Annual Report on Form 10-K beginning on page F-1.

**ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.**

None.

**ITEM 9A. CONTROLS AND PROCEDURES.**

We performed an evaluation under the supervision and with the participation of our management, including our chief executive officer and chief financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2010. Based on that evaluation, our management, including our chief executive officer and chief financial officer, concluded that the disclosure controls and procedures were effective as of such date. There were no changes in internal control over financial reporting that occurred during our fiscal quarter ended December 31, 2010 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

We incorporate by reference the report of independent registered public accounting firm and management's report on internal control over financial reporting included on pages F-3 and F-4, respectively, of this Annual Report on Form 10-K.

**ITEM 9B. OTHER INFORMATION.**

None.

**PART III**

**ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**

The information required by Item 401 of Regulation S-K is included under the caption Director Qualifications, Diversity and Biographies in our 2011 Proxy Statement and in Part I of this report under the caption Executive Officers of the Company. The information required by Items 405, 406 and 407(c)(3), (d)(4) and (d)(5) of Regulation S-K is included under the captions Section 16(a) Beneficial Ownership Reporting Compliance, Code of Conduct and Board Meetings and Committees in our 2011 Proxy Statement. Such information is incorporated herein by reference.

**ITEM 11. EXECUTIVE COMPENSATION.**

The information required by Items 402 and 407(e)(4) and (e)(5) of Regulation S-K is included under the captions Executive and Director Compensation, Compensation Committee Interlocks and Insider Participation and Personnel and Compensation Committee Report (which is furnished) in our 2011 Proxy Statement and is incorporated herein by reference.

**ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

**Edgar Filing: ARCH COAL INC - Form 10-K**

The information required by Items 201(d) and 403 of Regulation S-K is included under the captions **Equity Compensation Plan Information**, **Security Ownership of Directors and Executive Officers** and **Security Ownership of Certain Beneficial Owners** in our 2011 Proxy Statement and is incorporated herein by reference.

Table of Contents

**ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE.**

The information required by Items 404 and 407(a) of Regulation S-K is included under the caption **Directors and Corporate Governance Practices** in our 2011 Proxy Statement and is incorporated herein by reference.

**ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES.**

The information required by Item 9(e) of Regulation S-K is included under the caption **Fees Paid to Auditors** in our 2011 Proxy Statement and is incorporated herein by reference.

**PART IV**

**ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.**

**Financial Statements**

Reference is made to the index set forth on page F-1 of this report.

**Financial Statement Schedules**

Financial statement schedules listed under SEC rules but not included in this report are omitted because they are not applicable or the required information is provided in the notes to our consolidated financial statements.

**Exhibits**

Reference is made to the Exhibit Index beginning on page 76 of this report.

Table of Contents**Signatures**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Arch Coal, Inc.

Steven F. Leer  
Chairman and Chief Executive Officer  
March 1, 2011

<b>Signatures</b>	<b>Capacity</b>	<b>Date</b>
Steven F. Leer	Chairman and Chief Executive Officer (Principal Executive Officer)	March 1, 2011
John T. Drexler	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	March 1, 2011
John W. Lorson	Vice President and Chief Accounting Officer (Principal Accounting Officer)	March 1, 2011
James R. Boyd	Director	March 1, 2011
John W. Eaves	President, Chief Operating Officer and Director	March 1, 2011
David Freudenthal	Director	
Patricia F. Godley	Director	March 1, 2011
Douglas H. Hunt	Director	March 1, 2011
Brian J. Jennings	Director	March 1, 2011
J. Thomas Jones	Director	March 1, 2011



Table of Contents

<b>Signatures</b>	<b>Capacity</b>	<b>Date</b>
Thomas A. Lockhart	Director	March 1, 2011
A. Michael Perry	Director	March 1, 2011
Robert G. Potter	Director	March 1, 2011
Theodore D. Sands	Director	March 1, 2011
Wesley M. Taylor	Director	March 1, 2011
Peter I. Wold	Director	March 1, 2011

\*By:

Robert G. Jones,  
Attorney-in-fact

Table of Contents**Exhibit Index**

<b>Exhibit</b>	<b>Description</b>
2.1	Purchase and Sale Agreement, dated as of December 31, 2005, by and between Arch Coal, Inc. and Magnum Coal Company (incorporated herein by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed on January 6, 2006).
2.2	Amendment No. 1 to the Purchase and Sale Agreement, dated as of February 7, 2006, by and between Arch Coal, Inc. and Magnum Coal Company (incorporated by reference to Exhibit 2.1 to the registrant's Annual Report on Form 10-K for the year ended December 31, 2005).
2.3	Amendment No. 2 to the Purchase and Sale Agreement, dated as of April 27, 2006, by and between Arch Coal, Inc. and Magnum Coal Company (incorporated herein by reference to Exhibit 2.1 to the registrant's Quarterly Report on Form 10-Q for the period ended June 30, 2006).
2.4	Amendment No. 3 to the Purchase and Sale Agreement, dated as of August 29, 2007, by and between Arch Coal, Inc. and Magnum Coal Company (incorporated herein by reference to Exhibit 2.1 to the registrant's Quarterly Report on Form 10-Q for the period ended September 30, 2007).
2.5	Agreement, dated as of March 27, 2008, by and between Arch Coal, Inc. and Magnum Coal Company (incorporated herein by reference to Exhibit 2.1 to the registrant's Quarterly Report on Form 10-Q for the period ended March 31, 2008).
2.6	Amendment No. 1 to Agreement, dated as of February 5, 2009, by and between Arch Coal, Inc. and Magnum Coal Company (incorporated herein by reference to Exhibit 2.6 to the registrant's Annual Report on Form 10-K for the year ended December 31, 2008).
3.1	Restated Certificate of Incorporation of Arch Coal, Inc. (incorporated herein by reference to Exhibit 3.1 to the registrant's Current Report on Form 8-K filed on May 5, 2006).
3.2	Arch Coal, Inc. Bylaws, as amended effective as of December 5, 2008 (incorporated herein by reference to Exhibit 3.1 to the registrant's Current Report on Form 8-K filed on December 10, 2008).
4.1	Indenture, dated as of June 25, 2003, by and among Arch Western Finance, LLC, Arch Coal, Inc., Arch Western Resources, LLC, Arch of Wyoming, LLC, Mountain Coal Company, L.L.C., Thunder Basin Coal Company, L.L.C. and The Bank of New York, as trustee (incorporated herein by reference to Exhibit 4.1 to the Registration Statement on Form S-4 (Reg. No. 333-107569) filed by Arch Western Finance, LLC on August 1, 2003).
4.2	First Supplemental Indenture dated October 22, 2004 among Arch Western Finance, LLC, Arch Western Resources, LLC, Arch of Wyoming, LLC, Arch Western Bituminous Group, LLC, Mountain Coal Company, L.L.C., Thunder Basin Coal Company, L.L.C., Triton Coal Company, LLC, and The Bank of New York, as trustee (incorporated herein by reference to Exhibit 4.4 to the registrant's Current Report on Form 8-K filed on October 28, 2004).
4.3	Indenture, dated as of July 31, 2009 by and among Arch Coal, Inc., the subsidiary guarantors named therein and U.S. Bank National Association, as trustee (incorporated herein by reference to Exhibit 4.1 to the registrant's Current Report on Form 8-K filed on July 31, 2009).
4.4	First Supplemental Indenture, dated as of February 8, 2010, by and among Arch Coal, Inc., the subsidiary guarantors named therein and U.S. Bank National Association, as trustee (incorporated herein by reference to Exhibit 4.1 to the registrant's Quarterly Report on Form 10-Q for the period ended March 31, 2010).
4.5	Second Supplemental Indenture, dated as of March 12, 2010, by and among Arch Coal, Inc., the subsidiary guarantors named therein and U.S. Bank National Association, as trustee (incorporated herein by reference to Exhibit 4.5 to the registrant's Registration Statement on Form S-4 filed on April 7, 2010)
4.6	Third Supplemental Indenture, dated as of May 7, 2010, by and among Arch Coal, Inc., the subsidiary guarantors named therein and U.S. Bank National Association, as trustee (incorporated herein by reference to Exhibit 4.3 to the registrant's Quarterly Report on Form 10-Q for the period ended March 31, 2010)

Edgar Filing: ARCH COAL INC - Form 10-K

- 4.7 Fourth Supplemental Indenture, dated December 16, 2010, by and among Arch Coal West, LLC, Arch Coal, Inc., the subsidiary guarantors named therein and U.S. Bank National Association, as trustee
- 4.8 Indenture, dated as of August 9, 2010, by and between Arch Coal, Inc. and U.S. Bank National Association, as trustee (incorporated herein by reference to Exhibit 4.1 to the registrant's Current Report on Form 8-K filed on August 9, 2010)
- 4.9 First Supplemental Indenture, dated as of August 9, 2010, by and among Arch Coal, Inc., the subsidiary guarantors named therein, and U.S. Bank National Association, as trustee (incorporated herein by reference to Exhibit 4.2 to the registrant's Current Report on Form 8-K filed on August 9, 2010)

Table of Contents

<b>Exhibit</b>	<b>Description</b>
4.10	Second Supplemental Indenture, dated as of December 16, 2010, by and among Arch Coal West, LLC, Arch Coal, Inc., the subsidiary guarantors named therein and U.S. Bank National Association, as trustee
10.1	Credit Agreement, dated as of December 22, 2004, by and among Arch Coal, Inc., the Banks party thereto, PNC Bank, National Association, as administrative agent, Citicorp USA, Inc., JPMorgan Chase Bank, N.A., and Wachovia Bank, National Association, as co-syndication agents, and Fleet National Bank, as documentation agent (incorporated herein by reference to Exhibit 99.1 to the Current Report on Form 8-K filed by the registrant on December 28, 2004).
10.2	First Amendment to Credit Agreement, dated as of June 23, 2006, by and among Arch Coal, Inc., the banks party thereto, Citicorp USA, Inc., JPMorgan Chase Bank, N.A. and Wachovia Bank, National Association, each in its capacity as syndication agent, Bank of America, N.A. (as successor-by-merger to Fleet National Bank), as documentation agent, and PNC Bank, National Association, as administrative agent for the banks (incorporated by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed on June 27, 2006).
10.3	Second Amendment to Credit Agreement, dated as of October 3, 2006, by and among Arch Coal, Inc., the banks party thereto, Citicorp USA, Inc., JPMorgan Chase Bank, N.A. and Wachovia Bank, National Association, each in its capacity as syndication agent, Bank of America, N.A. (as successor-by-merger to Fleet National Bank), as documentation agent, and PNC Bank, National Association, as administrative agent for the banks (incorporated by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed on October 6, 2006).
10.4	Third Amendment to Credit Agreement, dated as of March 6, 2009, by and among Arch Coal, Inc., the banks party thereto, Citicorp USA, Inc., JPMorgan Chase Bank, N.A. and Wachovia Bank, National Association, each in its capacity as syndication agent, Bank of America, N.A. (as successor-by-merger to Fleet National Bank), as documentation agent, and PNC Bank, National Association, as administrative agent for the banks (incorporated by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed on March 12, 2009).
10.5	Fourth Amendment to Credit Agreement, dated as of August 27, 2009, by and among Arch Coal, Inc., the banks party thereto, Citicorp USA, Inc., JPMorgan Chase Bank, N.A. and Wachovia Bank, National Association, each in its capacity as syndication agent, Bank of America, N.A. (as successor-by-merger to Fleet National Bank), as documentation agent, and PNC Bank, National Association, as administrative agent for the banks. (incorporated by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed on August 28, 2009).
10.6	Fifth Amendment to Credit Agreement, dated as of March 19, 2010, by and among Arch Coal, Inc., the banks party thereto, Citicorp USA, Inc., JPMorgan Chase Bank, N.A. and Wachovia Bank, National Association, each in its capacity as syndication agent, Bank of America, N.A. (as successor-by-merger to Fleet National Bank), as documentation agent, and PNC Bank, National Association, as administrative agent for the banks. (incorporated by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed on March 23, 2010).
10.7	Sixth Amendment to Credit Agreement, dated as of November 24, 2010, by and among Arch Coal, Inc., the banks party thereto, Citicorp USA, Inc., JPMorgan Chase Bank, N.A. and Wachovia Bank, National Association, each in its capacity as syndication agent, Bank of America, N.A. (as successor-by-merger to Fleet National Bank), as documentation agent, and PNC Bank, National Association, as administrative agent for the banks.
10.8*	Employment Agreement, dated November 10, 2006, between Arch Coal, Inc. and Steven F. Leer (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed by the registrant on November 16, 2006).
10.9*	

Edgar Filing: ARCH COAL INC - Form 10-K

Form of Employment Agreement for Executive Officers of Arch Coal, Inc. (other than Steven F. Leer) (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed by the registrant on November 16, 2006).

- 10.10 Coal Lease Agreement dated as of March 31, 1992, among Allegheny Land Company, as lessee, and UAC and Phoenix Coal Corporation, as lessors, and related guarantee (incorporated herein by reference to the Current Report on Form 8-K filed by Ashland Coal, Inc. on April 6, 1992).
- 10.11 Federal Coal Lease dated as of June 24, 1993 between the U.S. Department of the Interior and Southern Utah Fuel Company (incorporated herein by reference to Exhibit 10.17 to the registrant's Annual Report on Form 10-K for the year ended December 31, 1998).

Table of Contents

<b>Exhibit</b>	<b>Description</b>
10.12	Federal Coal Lease between the U.S. Department of the Interior and Utah Fuel Company (incorporated herein by reference to Exhibit 10.18 to the registrant's Annual Report on Form 10-K for the year ended December 31, 1998).
10.13	Federal Coal Lease dated as of July 19, 1997 between the U.S. Department of the Interior and Canyon Fuel Company, LLC (incorporated herein by reference to Exhibit 10.19 to the registrant's Annual Report on Form 10-K for the year ended December 31, 1998).
10.14	Federal Coal Lease dated as of January 24, 1996 between the U.S. Department of the Interior and the Thunder Basin Coal Company (incorporated herein by reference to Exhibit 10.20 to the registrant's Annual Report on Form 10-K for the year ended December 31, 1998).
10.15	Federal Coal Lease Readjustment dated as of November 1, 1967 between the U.S. Department of the Interior and the Thunder Basin Coal Company (incorporated herein by reference to Exhibit 10.21 to the registrant's Annual Report on Form 10-K for the year ended December 31, 1998).
10.16	Federal Coal Lease effective as of May 1, 1995 between the U.S. Department of the Interior and Mountain Coal Company (incorporated herein by reference to Exhibit 10.22 to the registrant's Annual Report on Form 10-K for the year ended December 31, 1998).
10.17	Federal Coal Lease dated as of January 1, 1999 between the Department of the Interior and Ark Land Company (incorporated herein by reference to Exhibit 10.23 to the registrant's Annual Report on Form 10-K for the year ended December 31, 1998).
10.18	Federal Coal Lease dated as of October 1, 1999 between the U.S. Department of the Interior and Canyon Fuel Company, LLC (incorporated herein by reference to Exhibit 10 to the registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 1999).
10.19	Federal Coal Lease effective as of March 1, 2005 by and between the United States of America and Ark Land LT, Inc. covering the tract of land known as Little Thunder in Campbell County, Wyoming (incorporated by reference to Exhibit 99.1 to the Current Report on Form 8-K filed by the registrant on February 10, 2005).
10.20	Modified Coal Lease (WYW71692) executed January 1, 2003 by and between the United States of America, through the Bureau of Land Management, as lessor, and Triton Coal Company, LLC, as lessee, covering a tract of land known as North Rochelle in Campbell County, Wyoming (incorporated by reference to Exhibit 10.24 to the registrant's Annual Report on Form 10-K for the year ended December 31, 2004).
10.21	Coal Lease (WYW127221) executed January 1, 1998 by and between the United States of America, through the Bureau of Land Management, as lessor, and Triton Coal Company, LLC, as lessee, covering a tract of land known as North Roundup in Campbell County, Wyoming (incorporated by reference to Exhibit 10.24 to the registrant's Annual Report on Form 10-K for the year ended December 31, 2004).
10.22	State Coal Lease executed October 1, 2004 by and between The State of Utah, Thru School & Institutional Trust Lands Admin, as lessor, and Ark Land Company and Arch Coal, Inc., as lessees, covering a tract of land located in Seiever County, Utah (incorporated by reference to Exhibit 10.20 to the registrant's Annual Report on Form 10-K for the year ended December 31, 2006).
10.23	State Coal Lease executed September 1, 2000 by and between The State of Utah, Thru School & Institutional Trust Lands Admin, as lessor, and Canyon Fuel Company, LLC, as lessee, for lands located in Carbon County, Utah (incorporated by reference to Exhibit 10.21 to the registrant's Annual Report on Form 10-K for the year ended December 31, 2006).
10.24	Federal Coal Lease executed September 1, 1996 by and between the Bureau of Land Management, as lessor, and Canyon Fuel Company, LLC, as lessee, covering a tract of land known as The North Lease in Carbon County, Utah (incorporated by reference to Exhibit 10.22 to the registrant's Annual Report on

**Edgar Filing: ARCH COAL INC - Form 10-K**

- Form 10-K for the year ended December 31, 2006).
- 10.25 State Coal Lease executed January 18, 2008 by and between The State of Utah, Thru School & Institutional Trust Lands Admin, as lessor, and Ark Land Company, as lessee, for lands located in Emery County, Utah (incorporated by reference to Exhibit 10.21 to the registrant's Annual Report on Form 10-K for the year ended December 31, 2008).
- 10.26 Form of Indemnity Agreement between Arch Coal, Inc. and Indemnitee (as defined therein) (incorporated herein by reference to Exhibit 10.15 to the Registration Statement on Form S-4 (Registration No. 333-28149) filed by the registrant on May 30, 1997).
- 10.27\* Arch Coal, Inc. Incentive Compensation Plan For Executive Officers (incorporated herein by reference to Appendix B to the proxy statement on Schedule 14A filed by the registrant on March 22, 2010).

Table of Contents

<b>Exhibit</b>	<b>Description</b>
10.28*	Arch Coal, Inc. Deferred Compensation Plan (incorporated herein by reference to Exhibit 10.3 to the registrant's Current Report on Form 8-K filed on December 11, 2008).
10.29*	Arch Coal, Inc. 1997 Stock Incentive Plan (as amended and restated on October 21, 2010) (incorporated herein by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed on October 27, 2010).
10.30*	Arch Mineral Corporation 1996 ERISA Forfeiture Plan (incorporated herein by reference to Exhibit 10.20 to the Registration Statement on Form S-4 (Registration No. 333-28149) filed by the registrant on May 30, 1997).
10.31*	Arch Coal, Inc. Outside Directors Deferred Compensation Plan (incorporated herein by reference to Exhibit 10.4 of the registrant's Current Report on Form 8-K filed on December 11, 2008).
10.32*	Arch Coal, Inc. Supplemental Retirement Plan (as amended on December 5, 2008) (incorporated herein by reference to Exhibit 10.2 to the registrant's Current Report on Form 8-K filed on December 11, 2008).
10.33	Amended and Restated Receivables Purchase Agreement, dated as of February 24, 2020, among Arch Receivable Company, LLC, Arch Coal Sales Company, Inc., Market Street Funding LLC, as issuer, the financial institutions from time to time party thereto, as LC Participants, and PNC Bank, National Association, as Administrator on behalf of the Purchasers and as LC Bank (incorporated herein by reference to Exhibit 10.2 to the registrant's Quarterly Report on Form 10-Q for the period ended March 31, 2010).
10.34*	Form of Restricted Stock Unit Contract (incorporated herein by reference to Exhibit 10.5 to the registrant's Current Report on Form 8-K filed on February 24, 2006).
10.35*	Form of Non-Qualified Stock Option Agreement (for stock options granted prior to February 21, 2008) (incorporated herein by reference to Exhibit 10.35 to the registrant's Annual Report on Form 10-K for the year ended December 31, 2006).
10.36*	Form of 2008 Restricted Stock Unit Contract for Messrs. Leer and Eaves (incorporated herein by reference to Exhibit 10.3 to the registrant's Current Report on Form 8-K filed on February 27, 2008).
10.37*	Form of 2008 Non-Qualified Stock Option Agreement for Messrs. Leer and Eaves (incorporated herein by reference to Exhibit 10.4 to the registrant's Current Report on Form 8-K filed on February 27, 2008).
10.38*	Form of Non-Qualified Stock Option Agreement (for stock options granted on or after February 21, 2008) (incorporated herein by reference to Exhibit 10.5 to the registrant's Current Report on Form 8-K filed on February 27, 2008).
10.39*	Form of Performance Unit Contract (incorporated herein by reference to Exhibit 10.2 to the registrant's Current Report on Form 8-K filed on February 23, 2009).
10.40*	Form of Director Indemnity Agreement.
10.41	First Amendment to Amended and Restated Receivables Purchase Agreement, dated January 31, 2011, among Arch Receivable Company, LLC, Arch Coal Sales Company, Inc. and the other parties thereto.
12.1	Computation of ratio of earnings to combined fixed charges and preference dividends.
21.1	Subsidiaries of the registrant.
23.1	Consent of Ernst & Young LLP.
23.2	Consent of Weir International, Inc.
24.1	Power of Attorney.
31.1	Rule 13a-14(a)/15d-14(a) Certification of Steven F. Leer.
31.2	Rule 13a-14(a)/15d-14(a) Certification of John T. Drexler.
32.1	Section 1350 Certification of Steven F. Leer.
32.2	Section 1350 Certification of John T. Drexler.

Edgar Filing: ARCH COAL INC - Form 10-K

- 101      Interactive Data File (Form 10-K for the year ended December 31, 2010 furnished in XBRL). The financial information contained in the XBRL-related documents is unaudited and unreviewed and, in accordance with Rule 406T of Regulation S-T, is not deemed filed for purposes of Sections 11 and 12 of the Securities Act of 1933, as amended, and Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to liability under these sections.

\* Denotes management contract or compensatory plan arrangements.

79

---

**Table of Contents**

**FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

The consolidated financial statements of Arch Coal, Inc. and subsidiaries and reports of independent registered public accounting firm follow.

**Index to Consolidated Financial Statements**

<u>Reports of Independent Registered Public Accounting Firm</u>	F-2
<u>Report of Management and Management's Report on Internal Control over Financial Reporting</u>	F-4
<u>Consolidated Statements of Income for the Years Ended December 31, 2010, 2009 and 2008</u>	F-5
<u>Consolidated Balance Sheets at December 31, 2010 and 2009</u>	F-6
<u>Consolidated Statements of Stockholders' Equity for the Years Ended December 31, 2010, 2009 and 2008</u>	F-7
<u>Consolidated Statements of Cash Flows for the Years Ended December 31, 2010, 2009 and 2008</u>	F-8
<u>Notes to Consolidated Financial Statements</u>	F-9
<u>Financial Statement Schedule</u>	F-50

**Table of Contents**

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Board of Directors and Shareholders of Arch Coal, Inc.

We have audited the accompanying consolidated balance sheets of Arch Coal, Inc. (the Company) as of December 31, 2010 and 2009, and the related consolidated statements of income, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2010. Our audits also included the financial statement schedule listed in the Index at Item 15. These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Arch Coal, Inc. at December 31, 2010 and 2009, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2010, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Arch Coal, Inc.'s internal control over financial reporting as of December 31, 2010, based on criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated March 1, 2011, expressed an unqualified opinion thereon.

St. Louis, Missouri  
March 1, 2011

**Table of Contents**

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Board of Directors and Shareholders of Arch Coal, Inc.

We have audited Arch Coal, Inc. s (the Company s) internal control over financial reporting as of December 31, 2010, based on criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). The Company s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management s Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the company s internal control over financial reporting based on our audit.

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

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

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

In our opinion, Arch Coal, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2010, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Arch Coal, Inc. as of December 31, 2010 and 2009, and the related consolidated statements of income, shareholders equity, and cash flows for each of the three years in the period ended December 31, 2010, and our report dated March 1, 2011, expressed an unqualified opinion thereon.

St. Louis, Missouri  
March 1, 2011



**Table of Contents**

**REPORT OF MANAGEMENT**

The management of Arch Coal, Inc. (the Company ) is responsible for the preparation of the consolidated financial statements and related financial information in this annual report. The financial statements are prepared in accordance with accounting principles generally accepted in the United States and necessarily include some amounts that are based on management s informed estimates and judgments, with appropriate consideration given to materiality.

The Company maintains a system of internal accounting controls designed to provide reasonable assurance that financial records are reliable for purposes of preparing financial statements and that assets are properly accounted for and safeguarded. The concept of reasonable assurance is based on the recognition that the cost of a system of internal accounting controls should not exceed the value of the benefits derived. The Company has a professional staff of internal auditors who monitor compliance with and assess the effectiveness of the system of internal accounting controls.

The Audit Committee of the Board of Directors, comprised of independent directors, meets regularly with management, the internal auditors, and the independent auditors to discuss matters relating to financial reporting, internal accounting control, and the nature, extent and results of the audit effort. The independent auditors and internal auditors have full and free access to the Audit Committee, with and without management present.

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

The management of Arch Coal, Inc. (the Company ) is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Securities Exchange Act Rule 13a-15(f). Under the supervision and with the participation of the Company s management, including its principal executive officer and principal financial officer, the Company conducted an evaluation of the effectiveness of its internal control over financial reporting based on the criteria set forth in *Internal Control Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on its evaluation, management concluded that the Company s internal control over financial reporting is effective as of December 31, 2010.

The Company s independent registered public accounting firm, Ernst & Young LLP, has issued an audit report on the Company s internal control over financial reporting.

Steven F. Leer  
*Chairman and Chief  
Executive Officer*

John T. Drexler  
*Senior Vice President and Chief  
Financial Officer*

Table of Contents**CONSOLIDATED STATEMENTS OF INCOME**

	<b>Year Ended December 31</b>		
	<b>2010</b>	<b>2009</b>	<b>2008</b>
	(In thousands, except per share data)		
<b>REVENUES</b>			
Coal sales	\$ 3,186,268	\$ 2,576,081	\$ 2,983,806
<b>COSTS, EXPENSES AND OTHER</b>			
Cost of coal sales	2,395,812	2,070,715	2,183,922
Depreciation, depletion and amortization	365,066	301,608	293,553
Amortization of acquired sales contracts, net	35,606	19,623	(705)
Selling, general and administrative expenses	118,177	97,787	107,121
Change in fair value of coal derivatives and coal trading activities, net	8,924	(12,056)	(55,093)
Gain on Knight Hawk transaction	(41,577)		
Costs related to acquisition of Jacobs Ranch		13,726	
Other operating income, net	(19,724)	(39,036)	(6,262)
	2,862,284	2,452,367	2,522,536
<b>Income from operations</b>	323,984	123,714	461,270
Interest expense, net:			
Interest expense	(142,549)	(105,932)	(76,139)
Interest income	2,449	7,622	11,854
	(140,100)	(98,310)	(64,285)
<b>Other non-operating expense:</b>			
Loss on early extinguishment of debt	(6,776)		
	(6,776)		
<b>Income before income taxes</b>	177,108	25,404	396,985
Provision for (benefit from) income taxes	17,714	(16,775)	41,774
<b>Net income</b>	159,394	42,179	355,211
Less: Net income attributable to noncontrolling interest	(537)	(10)	(881)
<b>Net income attributable to Arch Coal, Inc.</b>	\$ 158,857	\$ 42,169	\$ 354,330
<b>EARNINGS PER COMMON SHARE</b>			
Basic earnings per common share	\$ 0.98	\$ 0.28	\$ 2.47
Diluted earnings per common share	\$ 0.97	\$ 0.28	\$ 2.45
Basic weighted average shares outstanding	162,398	150,963	143,604

Edgar Filing: ARCH COAL INC - Form 10-K

Diluted weighted average shares outstanding	163,210	151,272	144,416
Dividends declared per common share	\$ 0.39	\$ 0.36	\$ 0.34

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

F-5

---

Table of Contents**CONSOLIDATED BALANCE SHEETS**

	<b>December 31</b>	
	<b>2010</b>	<b>2009</b>
(In thousands, except per share data)		
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 93,593	\$ 61,138
Trade accounts receivable	208,060	190,738
Other receivables	44,260	40,632
Inventories	235,616	240,776
Prepaid royalties	33,932	21,085
Coal derivative assets	15,191	18,807
Other	104,262	113,606
Total current assets	734,914	686,782
Property, plant and equipment:		
Coal lands and mineral rights	2,523,172	2,417,151
Plant and equipment	2,397,444	2,261,929
Deferred mine development	872,329	832,976
	5,792,945	5,512,056
Less accumulated depreciation, depletion and amortization	(2,484,053)	(2,145,870)
Property, plant and equipment, net	3,308,892	3,366,186
Other assets:		
Prepaid royalties	66,525	86,622
Goodwill	114,963	113,701
Deferred income taxes	361,556	354,869
Equity investments	177,451	87,268
Other	116,468	145,168
Total other assets	836,963	787,628
Total assets	\$ 4,880,769	\$ 4,840,596
<b>LIABILITIES AND STOCKHOLDERS EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 198,216	\$ 128,402
Coal derivative liabilities	4,947	2,244
Deferred income taxes	7,775	5,901
Accrued expenses and other current liabilities	245,411	227,716
Current maturities of debt and short-term borrowings	70,997	267,464

Edgar Filing: ARCH COAL INC - Form 10-K

Total current liabilities	527,346	631,727
Long-term debt	1,538,744	1,540,223
Asset retirement obligations	334,257	305,094
Accrued pension benefits	49,154	68,266
Accrued postretirement benefits other than pension	37,793	43,865
Accrued workers' compensation	35,290	29,110
Other noncurrent liabilities	110,234	98,243
 Total liabilities	 2,632,818	 2,716,528
Redeemable noncontrolling interest	10,444	8,962
 Stockholders' equity:		
Common stock, \$0.01 par value, authorized 260,000 shares, issued 164,117 and 163,953 shares at December 31, 2010 and 2009, respectively	1,645	1,643
Paid-in capital	1,734,709	1,721,230
Treasury stock, 1,512 shares at December 31, 2010 and 2009, at cost	(53,848)	(53,848)
Retained earnings	561,418	465,934
Accumulated other comprehensive loss	(6,417)	(19,853)
 Total stockholders' equity	 2,237,507	 2,115,106
 Total liabilities and stockholders' equity	 \$ 4,880,769	 \$ 4,840,596

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

F-6

---

Table of Contents

**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**  
**Three Years Ended December 31, 2010**

	Preferred Stock	Common Stock	Paid-In Capital	Retained Earnings	Treasury Stock, at Cost	Accumulated Comprehensive Loss	Other	Total
(In thousands, except per share data)								
<b>BALANCE AT</b>								
<b>JANUARY 1, 2008</b>	\$ 1	\$ 1,436	\$ 1,358,695	\$ 173,186	\$	\$ (1,632)	\$ 1,531,686	
Comprehensive income:								
Net income attributable to Arch Coal, Inc.				354,330				354,330
Pension, postretirement and other post-employment benefits					(31,907)		(31,907)	
Net amount reclassified to income					(684)		(684)	
Unrealized losses on available-for- sale securities					(349)		(349)	
Net amount reclassified to income					1,005		1,005	
Unrealized losses on derivatives					(44,128)		(44,128)	
Net amount reclassified to income					(1,401)		(1,401)	
Total comprehensive income				354,330		(77,464)		276,866
Dividends:								
Common (\$0.34 per share)					(48,769)			(48,769)
Preferred (\$2.50 per share)					(12)			(12)
Issuance of 261 shares of common stock under the stock incentive plan restricted stock and restricted stock units		2		(2)				
Issuance of 405 shares of common stock upon conversion of preferred stock	(1)	4		(3)		(24)	(1)	(25)

Edgar Filing: ARCH COAL INC - Form 10-K

Preferred stock redemption					
Issuance of 521 shares of common stock under the stock incentive plan					
stock options including income tax benefits	5	6,314			6,319
Purchase of 1,512 shares of common stock under stock repurchase program			(53,848)		(53,848)
Employee stock-based compensation expense		16,516			16,516
<b>BALANCE AT</b>					
<b>DECEMBER 31, 2008</b>	<b>1,447</b>	<b>1,381,496</b>	<b>478,734</b>	<b>(53,848)</b>	<b>(79,096)</b>
Comprehensive income:					
Net income attributable to Arch Coal, Inc.			42,169		42,169
Pension, postretirement and other post-employment benefits				12,176	12,176
Net amount reclassified to income				718	718
Unrealized losses on available-for- sale securities				(86)	(86)
Unrealized gains on derivatives				2,436	2,436
Net amount reclassified to income				43,999	43,999
Total comprehensive income			42,169	59,243	101,412
Dividends on common shares (\$0.36 per share)			(54,969)		(54,969)
Issuance of 19,550 common shares	196	326,256			326,452
Issuance of 45 shares of common stock under the stock incentive plan					
restricted stock and restricted stock units	0	0			0
Issuance of 13 shares of common stock under the stock incentive plan					
stock options including income tax benefits	0	84			84
Employee stock-based compensation expense		13,394			13,394

Edgar Filing: ARCH COAL INC - Form 10-K

BALANCE AT DECEMBER 31, 2009	1,643	1,721,230	465,934	(53,848)	(19,853)	2,115,106
Comprehensive income:						
Net income attributable to Arch Coal, Inc.			158,857			158,857
Pension, postretirement and other post-employment benefits				9,750		9,750
Net amount reclassified to income				110		110
Unrealized gains on available-for- sale securities				1,841		1,841
Unrealized gains on derivatives				221		221
Net amount reclassified to income				1,514		1,514
Total comprehensive income		158,857		13,436		172,293
Dividends on common shares (\$0.39 per share)			(63,373)			(63,373)
Issuance of 9 shares of common stock under the stock incentive plan restricted stock and restricted stock units, net of forfeitures	0		0			0
Issuance of 155 shares of common stock under the stock incentive plan stock options including income tax benefits	2		1,762			1,764
Employee stock-based compensation expense		11,717				11,717
 BALANCE AT DECEMBER 31, 2010	\$ 1,645	\$ 1,734,709	\$ 561,418	\$ (53,848)	\$ (6,417)	\$ 2,237,507

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

Table of Contents**CONSOLIDATED STATEMENTS OF CASH FLOWS**

	<b>Year Ended December 31</b>		
	<b>2010</b>	<b>2009</b>	<b>2008</b>
	(In thousands)		
<b>OPERATING ACTIVITIES</b>			
Net income	\$ 159,394	\$ 42,179	\$ 355,211
Adjustments to reconcile net income to cash provided by operating activities:			
Depreciation, depletion and amortization	365,066	301,608	293,553
Amortization of acquired sales contracts, net	35,606	19,623	(705)
Prepaid royalties expensed	34,605	29,746	36,227
Employee stock-based compensation	11,717	13,394	12,618
Amortization of debt financing costs	9,839	7,450	4,829
Gain on Knight Hawk transaction	(41,577)		
Loss on early retirement of debt	6,776		
Changes in operating assets and liabilities:			
Receivables	(7,287)	47,794	(9,871)
Inventories	5,160	(28,518)	(13,783)
Coal derivative assets and liabilities	9,554	32,266	(41,183)
Accounts payable, accrued expenses and other current liabilities	87,807	(44,764)	21,823
Deferred income taxes	(12,405)	(34,668)	15,222
Accrued postretirement benefits other than pension	2,488	4,142	4,202
Asset retirement obligations	23,997	18,741	16,437
Accrued workers' compensation	(813)	(2,909)	(528)
Other	7,220	(23,104)	(14,915)
Cash provided by operating activities	697,147	382,980	679,137
<b>INVESTING ACTIVITIES</b>			
Capital expenditures	(314,657)	(323,150)	(497,347)
Payments made to acquire Jacobs Ranch		(768,819)	
Proceeds from dispositions of property, plant and equipment	330	825	1,135
Additions to prepaid royalties	(27,355)	(26,755)	(19,764)
Purchases of investments and advances to affiliates	(46,185)	(10,925)	(7,466)
Consideration paid related to prior business acquisitions	(1,262)	(4,767)	(6,800)
Reimbursement of deposits on equipment		3,209	2,697
Cash used in investing activities	(389,129)	(1,130,382)	(527,545)
<b>FINANCING ACTIVITIES</b>			
Proceeds from the issuance of long-term debt	500,000	584,784	
Repayments of long-term debt, including redemption premium	(505,627)		
Proceeds from the sale of common stock		326,452	
Purchases of treasury stock			(53,848)
Net increase (decrease) in borrowings under lines of credit and commercial paper program	(196,549)	(85,815)	13,493
Net proceeds from (payments on) other debt	82	(2,986)	(2,907)

**Edgar Filing: ARCH COAL INC - Form 10-K**

Debt financing costs	(12,751)	(29,659)	(233)
Dividends paid	(63,373)	(54,969)	(48,847)
Issuance of common stock under incentive plans	1,764	84	6,319
Contribution from noncontrolling interest	891		
 Cash provided by (used in) financing activities	 (275,563)	 737,891	 (86,023)
Increase (decrease) in cash and cash equivalents	32,455	(9,511)	65,569
Cash and cash equivalents, beginning of year	61,138	70,649	5,080
 Cash and cash equivalents, end of year	 \$ 93,593	 \$ 61,138	 \$ 70,649

**SUPPLEMENTAL CASH FLOW INFORMATION:**

Cash paid during the year for interest	\$ 134,866	\$ 76,801	\$ 71,620
Cash paid during the year for income taxes	\$ 36,765	\$ 17,482	\$ 22,830

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

**Table of Contents**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**1. Accounting Policies**

***Basis of Presentation***

The consolidated financial statements include the accounts of Arch Coal, Inc. and its subsidiaries and controlled entities (the "Company"). The Company's primary business is the production of steam and metallurgical coal from surface and underground mines located throughout the United States for sale to utility, steel, industrial and export markets. The Company's mines are located in southern West Virginia, eastern Kentucky, Virginia, Wyoming, Colorado and Utah. All subsidiaries (except as noted below) are wholly-owned. Intercompany transactions and accounts have been eliminated in consolidation.

The Company owns a 99% membership interest in a joint venture named Arch Western Resources, LLC ("Arch Western") which operates coal mines in Wyoming, Colorado and Utah. The Company also acts as the managing member of Arch Western.

In October, 2009, the Company purchased the outstanding membership interests of Jacobs Ranch Holdings I LLC, the parent of Jacobs Ranch mining operations, which were adjacent to the Company's Black Thunder mining operations. See further discussion in Note 2, "Property Transactions".

***Accounting Pronouncements Adopted***

There were no accounting pronouncements whose adoption had a material impact on the Company's consolidated financial statements.

***Accounting Estimates***

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

***Cash and Cash Equivalents***

Cash and cash equivalents are stated at cost. Cash equivalents consist of highly-liquid investments with an original maturity of three months or less when purchased. At December 31, 2010 and 2009, the carrying amounts of cash and cash equivalents approximate their fair value.

***Allowance for Uncollectible Receivables***

The Company's allowance for uncollectible receivables reflects the amounts of its trade accounts receivable and other receivables that are not expected to be collected, based on past collection history, the economic environment and specified risks identified in the receivables portfolio. Receivables are considered past due if the full payment is not received by the contractual due date. There was no allowance for uncollectible receivables at December 31, 2010. The allowance deducted from the balance of receivables was \$0.1 million at December 31, 2009.

***Inventories***

Coal and supplies inventories are valued at the lower of average cost or market. Coal inventory costs include labor, supplies, equipment costs, transportation costs incurred prior to title transfer to customers and operating overhead. Stripping costs incurred during the production phase of the mine are considered variable production costs and are included in the cost of the coal extracted during the period the stripping costs are incurred.

F-9

---

**Table of Contents****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)*****Investments***

Investments and ownership interests are accounted for under the equity method of accounting if the Company has the ability to exercise significant influence, but not control, over the entity. The Company reflects its share of the entity's income in other operating income, net in its consolidated statements of income. Marketable equity securities held by the Company that do not qualify for equity method accounting are classified as available-for-sale and are recorded at their fair value on the balance sheet. Unrealized gains and losses on these investments are recorded in other comprehensive income. A decline in the value of an investment that is considered other than temporary is recognized in income.

***Prepaid Royalties***

Leased mineral rights are often acquired through royalty payments. Where royalty payments represent prepayments recoupable against future production, they are recorded as a prepaid asset, with amounts expected to be recouped within one year classified as current. As the coal is mined under these leases the royalties are recouped and the prepayment is charged to cost of coal sales.

***Acquired Sales Contracts***

Coal supply agreements (sales contracts) acquired in a business combination are capitalized at their fair value and amortized over the tons of coal shipped during the term of the contract. The fair value of a sales contract is determined by discounting the cash flows attributable to the difference between the contract price and the prevailing forward prices for the tons under contract at the date of acquisition. The net book value of the Company's above-market sales contracts was \$32.1 million and \$78.3 million at December 31, 2010 and 2009, respectively, \$25.1 million and \$44.4 million of which were classified as current. Current amounts are recorded in other current assets in the accompanying consolidated balance sheets and noncurrent amounts are recorded in other assets in the accompanying consolidated balance sheets. The net book value of the below-market sales contracts was \$26.0 million and \$36.6 million at December 31, 2010 and 2009, respectively, \$5.6 million and \$9.7 million of which were classified as current. Current amounts are recorded in accrued expenses and noncurrent amounts are recorded in other noncurrent liabilities in the accompanying consolidated balance sheets. Based upon expected shipments under these contracts in the next five years, the Company anticipates annual amortization expense (income) of acquired sales contracts in the next five years of: \$19.9 million, \$0.4 million, \$(4.7) million, \$(4.7) million and \$(4.7) million.

***Exploration Costs***

Costs to acquire permits for exploration activities are capitalized. Drilling and other costs related to locating coal deposits and evaluating the economic viability of such deposits are expensed as incurred.

***Property, Plant and Equipment******Plant and Equipment***

Plant and equipment are recorded at cost. Interest costs applicable to major asset additions are capitalized during the construction period. For the year ended December 31, 2010 no interest costs were capitalized. During the years ended December 31, 2009 and 2008, interest costs of \$0.8 million and \$11.7 million, respectively, were capitalized. Expenditures that extend the useful lives of existing plant and equipment or increase the productivity of the asset are capitalized. The cost of maintenance and repairs that do not extend the useful life or increase the productivity of the

Edgar Filing: ARCH COAL INC - Form 10-K

asset are expensed as incurred. Preparation plants and loadouts are depreciated using the units-of-production method over the estimated recoverable reserves, subject to a minimum level of depreciation. Other plant and equipment are depreciated principally on the straight-line method over the estimated useful lives of the assets, limited by the remaining life of the mine. The useful lives of mining

F-10

---

**Table of Contents****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

equipment, including longwalls, draglines and shovels, range from 5 to 32 years. The useful lives of buildings and leasehold improvements generally range from 10 to 30 years.

***Deferred Mine Development***

Costs of developing new mines or significantly expanding the capacity of existing mines are capitalized and amortized using the units-of-production method over the estimated recoverable reserves that are associated with the property being benefited. Costs may include construction permits and licenses; mine design; construction of access roads, shafts, slopes and main entries; and removing overburden to access reserves in a new pit. Additionally, deferred mine development includes the asset cost associated with asset retirement obligations.

***Coal Lands and Mineral Rights***

Rights to coal reserves may be acquired directly through governmental or private entities. A significant portion of the Company's coal reserves are controlled through leasing arrangements. The net book value of the Company's leased coal interests was \$1.6 billion at December 31, 2010 and 2009. Payments to acquire royalty lease agreements and lease bonus payments are capitalized as a cost of the underlying mineral reserves and depleted over the life of proven and probable reserves. Future lease bonus payments of \$29.5 million in 2011, \$28.4 million in 2012, \$23.4 million in 2013 and \$7.3 million in 2014 are due. Coal lease rights are depleted using the units-of-production method, and the rights are assumed to have no residual value. Lease agreements are generally long-term in nature (original terms range from 10 to 50 years), and substantially all of the leases contain provisions that allow for automatic extension of the lease term providing certain requirements are met.

***Impairment***

If facts and circumstances suggest that the carrying value of a long-lived asset or asset group may not be recoverable, the asset or asset group is reviewed for potential impairment. If this review indicates that the carrying amount of the asset will not be recoverable through projected undiscounted cash flows related to the asset over its remaining life, then an impairment loss is recognized by reducing the carrying value of the asset to its fair value.

***Goodwill***

Goodwill represents the excess of the purchase price over the fair value assigned to the net tangible and identifiable intangible assets acquired in a business combination. Goodwill is tested for impairment annually as of the beginning of the fourth quarter, or when circumstances indicate a possible impairment may exist. Impairment testing is performed at a reporting unit level, which is the Company's Black Thunder mining complex. An impairment loss generally would be recognized when the carrying amount of the reporting unit exceeds the fair value of the reporting unit, with the fair value of the reporting unit determined using a discounted cash flow (DCF) analysis. A number of significant assumptions and estimates are involved in the application of the DCF analysis to forecast operating cash flows, including the discount rate and projections of selling prices and costs to produce. Management considers historical experience and all available information at the time the fair values of its reporting units are estimated.

***Deferred Financing Costs***

The Company capitalizes costs incurred in connection with new borrowings, the establishment or enhancement of credit facilities and issuance of debt securities. These costs are amortized as an adjustment to interest expense over the life of the borrowing or term of the credit facility using the interest method. The unamortized balance of deferred

Edgar Filing: ARCH COAL INC - Form 10-K

financing costs was \$37.6 million and \$37.9 million at December 31, 2010 and 2009, respectively. Amounts classified as current were \$9.6 million and \$9.5 million at December 31, 2010 and 2009, respectively. Current amounts are recorded in other current assets and noncurrent amounts are recorded in other assets in the accompanying consolidated balance sheets.

F-11

---

**Table of Contents****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)*****Revenue Recognition***

Coal sales revenues include sales to customers of coal produced at Company operations and coal purchased from third parties. The Company recognizes revenue from coal sales at the time risk of loss passes to the customer at contracted amounts. Transportation costs are included in cost of coal sales and amounts billed by the Company to its customers for transportation are included in coal sales.

***Other Operating Income, Net***

Other operating income, net in the accompanying consolidated statements of income reflects income and expense from sources other than physical coal sales, including: bookouts, the practice of offsetting purchase and sale contracts for shipping convenience purposes, and contract settlements; royalties earned from properties leased to third parties; income from equity investments; gains and losses from dispositions of assets; and realized gains and losses on derivatives that do not qualify for hedge accounting and are not held for trading purposes.

***Asset Retirement Obligations***

The Company's legal obligations associated with the retirement of long-lived assets are recognized at fair value at the time the obligations are incurred. Accretion expense is recognized through the expected settlement date of the obligation. Obligations are incurred at the time development of a mine commences for underground and surface mines or construction begins for support facilities, refuse areas and slurry ponds. The obligation's fair value is determined using discounted cash flow techniques and is based upon permit requirements and various estimates and assumptions that would be used by market participants, including estimates of disturbed acreage, reclamation costs and assumptions regarding productivity. Upon initial recognition of a liability, a corresponding amount is capitalized as part of the carrying value of the related long-lived asset. Amortization of the related asset is recorded on a units-of-production basis over the mine's estimated recoverable reserves. Any difference between the recorded obligation and the actual cost of reclamation is recorded in profit or loss in the period the obligation is settled. See additional discussion in Note 12, Asset Retirement Obligations.

***Derivative Instruments***

The Company generally utilizes derivative instruments to manage exposures to commodity prices. Additionally, the Company may hold certain coal derivative instruments for trading purposes. Derivative financial instruments are recognized in the balance sheet at fair value. Certain coal contracts may meet the definition of a derivative instrument, but because they provide for the physical purchase or sale of coal in quantities expected to be used or sold by the Company over a reasonable period in the normal course of business, they are not recognized on the balance sheet.

Certain derivative instruments are designated as the hedge instrument in a hedging relationship. In a fair value hedge, the Company hedges the risk of changes in the fair value of a firm commitment, typically a fixed-price coal sales contract. Changes in both the hedged firm commitment and the fair value of a derivative used as a hedge instrument in a fair value hedge are recorded in earnings. In a cash flow hedge, the Company hedges the risk of changes in future cash flows related to a forecasted purchase or sale. Changes in the fair value of the derivative instrument used as a hedge instrument in a cash flow hedge are recorded in other comprehensive income. Amounts in other comprehensive income are reclassified to earnings when the hedged transaction affects earnings and are classified in a manner consistent with the transaction being hedged. The Company formally documents the relationships between hedging instruments and the respective hedged items, as well as its risk management objectives for hedge transactions.

Edgar Filing: ARCH COAL INC - Form 10-K

The Company evaluates the effectiveness of its hedging relationships both at the hedge's inception and on an ongoing basis. Any ineffective portion of the change in fair value of a derivative instrument used as a hedge instrument in a fair value or cash flow hedge is recognized immediately in earnings. The ineffective portion is based on the extent to which exact offset is not achieved between the change in fair value of the hedge

F-12

---

**Table of Contents****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

instrument and the cumulative change in expected future cash flows on the hedged transaction from inception of the hedge in a cash flow hedge or the change in the fair value. Ineffectiveness was insignificant for the years ended December 31, 2010, 2009 and 2008. See Note 7, Derivative Instruments for further disclosures related to the Company's derivative instruments.

***Fair Value***

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly hypothetical transaction between market participants at the measurement date. Valuation techniques used must maximize the use of observable inputs and minimize the use of unobservable inputs. See Note 11, Fair Values of Financial Instruments for further disclosures related to the Company's fair value estimates.

***Income Taxes***

Deferred income taxes are provided for temporary differences arising from differences between the financial statement amount and tax basis of assets and liabilities existing at each balance sheet date using enacted tax rates anticipated to be in effect when the related taxes are expected to be paid or recovered. A valuation allowance is established if it is more likely than not that a deferred tax asset will not be realized. In determining the need for a valuation allowance, the Company considers projected realization of tax benefits based on expected levels of future taxable income, available tax planning strategies and its overall deferred tax position. See Note 9, Taxes for further disclosures about income taxes.

***Benefit Plans***

The Company has non-contributory defined benefit pension plans covering most of its salaried and hourly employees. Benefits are generally based on the employee's age and compensation. The Company also currently provides certain postretirement medical and life insurance coverage for eligible employees. The cost of providing these benefits are determined on an actuarial basis and accrued over the employee's period of active service.

The Company recognizes the overfunded or underfunded status of these plans as determined on an actuarial basis on the balance sheet and the changes in the funded status are recognized in other comprehensive income. See Note 14, Employee Benefit Plans for additional disclosures relating to these obligations.

***Stock-Based Compensation***

The compensation cost of all stock-based awards is determined based on the grant-date fair value of the award, and is recognized in income over the requisite service period (typically the vesting period of the award). The grant-date fair value of option awards is determined using a Black-Scholes option pricing model. Compensation cost for an award with performance conditions is accrued if it is probable that the conditions will be met. See further discussion in Note 16, Stock Based Compensation and Other Incentive Plans.

***Accounting Standards Issued and Not Yet Adopted***

There are no new accounting pronouncements that have been issued whose adoption is expected to have a material impact on the Company's consolidated financial statements.

**2. Property Transactions**

Edgar Filing: ARCH COAL INC - Form 10-K

On November 12, 2009, the Company entered into a lease of coal reserves and other coal resources from Great Northern Properties Limited Partnership in Montana for \$73.1 million. On March 18, 2010, the Company was awarded a Montana state coal lease for the Otter Creek tracts for a price of \$85.8 million. The Company now controls approximately 1.4 billion tons of coal reserves in Montana's Otter Creek area.

F-13

---

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

On October 1, 2009 the Company purchased the Jacobs Ranch mining operations for a purchase price of \$768.8 million. The acquired operations included approximately 345 million tons of coal reserves that were adjacent to the Company's Black Thunder mining complex in its Powder River Basin segment. The acquired mining operations have been integrated into the Company's Black Thunder mining operations. To finance the acquisition, the Company sold 19.55 million shares of its common stock and issued \$600.0 million in aggregate principal amount of senior unsecured notes. See Note 10, Debt and Financing Arrangements and Note 15 Capital Stock for further information about these transactions.

**3. Goodwill**

Changes in the carrying value of Goodwill for the years ended December 31, 2010, 2009 and 2008 are as follows (in thousands):

Balance at January 1, 2008	\$ 40,032
Consideration paid related to prior business acquisitions	6,800
Balance at December 31, 2008	46,832
Consideration paid related to prior business acquisitions	4,767
Acquisition of Jacobs Ranch	62,102
Balance at December 31, 2009	113,701
Consideration paid related to prior business acquisitions	1,262
Balance at December 31, 2010	\$ 114,963

Goodwill has been allocated to the Company's Black Thunder mining complex, part of the Powder River Basin segment, for impairment testing purposes. All of the goodwill is expected to be deductible for income tax purposes. The consideration paid related to prior business acquisitions represents adjustments to the purchase price of a previous acquisition resulting from a 2008 tax settlement. For further discussion see Note 9, Taxes .

**4. Accumulated Other Comprehensive Income (Loss)**

Other comprehensive income (loss) includes transactions recorded in stockholders' equity during the year, excluding net income and transactions with stockholders. Following are the items included in accumulated other comprehensive income (loss):

	Pension, Postretirement and Other Post- Derivative Instruments	Employment Benefits	Available-for- Sale Securities (In thousands)	Accumulated Other Comprehensive Loss
--	---	------------------------	--	---

Edgar Filing: ARCH COAL INC - Form 10-K

Balance at January 1, 2008	\$ 280	\$ (842)	\$ (1,070)	\$ (1,632)
2008 activity, before tax	(71,129)	(50,925)	1,024	(121,030)
2008 activity, tax effect	25,600	18,334	(368)	43,566
Balance at December 31, 2008	(45,249)	(33,433)	(414)	(79,096)
2009 activity, before tax	72,553	20,124	(136)	92,541
2009 activity, tax effect	(26,118)	(7,230)	50	(33,298)
Balance at December 31, 2009	1,186	(20,539)	(500)	(19,853)
2010 activity, before tax	2,711	15,406	2,877	20,994
2010 activity, tax effect	(976)	(5,546)	(1,036)	(7,558)
Balance at December 31, 2010	\$ 2,921	\$ (10,679)	\$ 1,341	\$ (6,417)

F-14

---

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

As discussed in Note 1, Accounting Policies unrealized gains or losses on derivatives that qualify for hedge accounting as cash flow hedges are recorded in other comprehensive income. Pension, postretirement and other post-employment benefits adjustments in other comprehensive income relate to changes in the funded status of various benefit plans, as discussed in Note 1, Accounting Policies. The unrealized gains and losses associated with recognizing the Company's available-for-sale securities at fair value are recorded through other comprehensive income (loss).

**5. Equity Investments**

	<b>Knight Hawk</b>	<b>DKRW</b>	<b>DTA</b>	<b>Tenaska</b>	<b>Total</b>
	(In thousands)				
Balance at January 1, 2008	\$ 43,894	\$ 26,907	\$ 12,149	\$	\$ 82,950
Investments in affiliates			1,503		1,503
Advances to (distributions from) affiliates, net	(2,167)		4,467		2,300
Equity in comprehensive income (loss)	6,366	(1,783)	(3,575)		1,008
Balance at December 31, 2008	48,093	25,124	14,544		87,761
Advances to (distributions from) affiliates, net	(5,164)		2,925		(2,239)
Equity in comprehensive income (loss)	6,674	(1,535)	(3,393)		1,746
Balance at December 31, 2009	49,603	23,589	14,076		87,268
Investments in affiliates	77,637			9,768	87,405
Advances to (distributions from) affiliates, net	(12,639)		4,264		(8,375)
Equity in comprehensive income (loss)	16,649	(1,628)	(3,868)		11,153
Balance at December 31, 2010	\$ 131,250	\$ 21,961	\$ 14,472	\$ 9,768	\$ 177,451

The Company holds an equity interest in Knight Hawk Holdings, LLC ( Knight Hawk ), a coal producer in the Illinois Basin. In June 2010, the Company exchanged 68.4 million tons of coal reserves in the Illinois Basin for an additional 9% ownership interest, increasing the Company's ownership in Knight Hawk to 42% from 33 1/3%. The Company recognized a gain of \$41.6 million on the transaction, representing the difference between the fair value and the \$12.1 million net book value of the coal reserves, adjusted for the Company's retained ownership interest in the reserves through its investment in Knight Hawk. In December 2010, the Company increased its ownership interest in Knight Hawk to 49% for \$26.6 million in cash.

The Company holds a 24% equity interest in DKRW Advanced Fuels LLC ( DKRW ), a company engaged in developing coal-to-liquids facilities. Under a coal reserve purchase option with DKRW, DKRW could purchase reserves from the Company, which the Company would then mine on a contract basis for DKRW. Under a convertible secured promissory note, DKRW may borrow up to \$30 million in principal from its investors, of which \$20 million may be provided by the Company. Amounts borrowed are due and payable in cash or in additional equity interests on

## Edgar Filing: ARCH COAL INC - Form 10-K

the earlier of December 31, 2011 or upon the closing of DKRW's next financing, bear interest at the rate of 1.25% per month, and are secured by DKRW's equity interests in Medicine Bow Fuel & Power LLC. As of December 31, 2010 and 2009, the Company had advanced \$18.1 million and \$12.4 million, respectively, under the note, including accumulated interest. The note balances are reflected in other receivables on the consolidated balance sheets. As of December 31, 2010, DKRW may borrow up to an additional \$5.0 million in principal from the Company under the note.

The Company holds a general partnership interest in Dominion Terminal Associates ( DTA ), which is accounted for under the equity method. DTA operates a ground storage-to-vessel coal transloading facility in Newport News, Virginia for use by the partners. Under the terms of a throughput and handling agreement with DTA, each partner is charged its share of cash operating and debt-service costs in exchange for the right to use the facility's loading capacity and is required to make periodic cash advances to DTA to fund such costs. During 2008, the Company increased its ownership interest from 17.5% to 21.875%.

F-15

---

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

In March 2010, the Company purchased a 35% interest in Tenaska Trailblazer Partners, LLC (Tenaska), the developer of the Trailblazer Energy Center, a fossil-fuel-based electric power plant near Sweetwater, Texas. The plant, fueled by low sulfur coal, will capture and store carbon dioxide for enhanced oil recovery applications. In addition to the initial payment of \$9.8 million, additional payments totaling \$12.5 million are due upon the achievement of project milestones to maintain the Company's interest. The Company will also pay 35% of the future development costs of the project, not to exceed \$12.5 million without prior approval from the Company. The Company paid \$4.1 million of development costs in 2010. A receivable for these development costs is reflected in the consolidated balance sheet at December 31, 2010 in other noncurrent assets, as the development costs will either be reimbursed when the project receives construction financing, or they will be considered an additional capital contribution, with ownership percentages adjusted accordingly.

**6. Inventories**

Inventories consist of the following:

	<b>December 31</b>	
	<b>2010</b>	<b>2009</b>
	(In thousands)	
Coal	\$ 115,647	\$ 99,161
Repair parts and supplies	119,969	141,615
	<b>\$ 235,616</b>	<b>\$ 240,776</b>

The repair parts and supplies are stated net of an allowance for slow-moving and obsolete inventories of \$12.7 million and \$13.4 million at December 31, 2010 and 2009, respectively.

**7. Derivative Instruments*****Diesel fuel price risk management***

The Company is exposed to price risk with respect to diesel fuel purchased for use in its operations. The Company purchases approximately 55 to 65 million gallons of diesel fuel annually in its operations. To reduce the volatility in the price of diesel fuel for its operations, the Company uses forward physical diesel purchase contracts, as well as heating oil swaps and purchased call options. At December 31, 2010, the Company had protected the price of approximately 61% of its expected purchases for fiscal year 2011. Since the changes in the price of heating oil are highly correlated to changes in the price of the hedged diesel fuel purchases, the heating oil swaps and purchased call options qualify for cash flow hedge accounting. The Company held heating oil swaps and purchased call options for approximately 38.0 million gallons as of December 31, 2010.

***Coal risk management positions***

The Company may sell or purchase forward contracts, swaps and options in the over-the-counter coal market in order to manage its exposure to coal prices. The Company has exposure to the risk of fluctuating coal prices related to forecasted sales or purchases of coal or to the risk of changes in the fair value of a fixed price physical sales contract.

## Edgar Filing: ARCH COAL INC - Form 10-K

Certain derivative contracts may be designated as hedges of these risks.

At December 31, 2010, the Company held derivatives for risk management purposes totaling 0.5 million tons of coal sales that are expected to settle in 2011 and 2.2 million tons of coal sales that are expected to settle in 2012 through 2014.

### ***Coal trading positions***

The Company may sell or purchase forward contracts, swaps and options in the over-the-counter coal market for trading purposes. The Company may also include non-derivative contracts in its trading portfolio.

F-16

---

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The Company is exposed to the risk of changes in coal prices on its coal trading portfolio. The timing of the estimated future realization of the value of the trading portfolio is 57% in 2011 and 43% in 2012.

***Tabular derivatives disclosures***

The Company's contracts with certain of its counterparties allow for the settlement of contracts in an asset position with contracts in a liability position in the event of default or termination. Such netting arrangements reduce the credit exposure related to these counterparties. For classification purposes, the Company records the net fair value of all the positions with these counterparties as a net asset or liability. The amounts shown in the table below represent the fair value position of individual contracts, regardless of the net position presented in the accompanying consolidated balance sheets. The fair value and location of derivatives reflected in the accompanying consolidated balance sheets are as follows:

<b>Fair Value of Derivatives (In thousands)</b>	<b>December 31, 2010</b>		<b>December 31, 2009</b>	
	<b>Asset Derivatives</b>	<b>Liability Derivatives</b>	<b>Asset Derivatives</b>	<b>Liability Derivatives</b>
<b>Derivatives Designated as Hedging Instruments</b>				
Heating oil	\$ 13,475	\$ (2,350)	\$ 13,954	\$ (2,432)
Coal	2,009	(2,350)	3,075	(6,355)
Total	15,484	(2,350)	17,029	(8,787)
<b>Derivatives Not Designated as Hedging Instruments</b>				
Coal held for trading purposes	34,445	(24,087)	41,544	(31,262)
Coal	1,139	(912)	11,459	(1,898)
Total	35,584	(24,999)	53,003	(33,160)
Total derivatives	51,068	(27,349)	70,032	(41,947)
Effect of counterparty netting	(22,402)	22,402	(39,227)	39,227
<b>Net derivatives as classified in the balance sheet</b>	<b>\$ 28,666</b>	<b>\$ (4,947)</b>	<b>\$ 23,719</b>	<b>\$ 30,805</b>
			<b>\$ (2,720)</b>	<b>\$ 28,085</b>

**December 31,  
2010                    2009**

**Net derivatives as reflected on the balance sheets**

<b>Heating oil</b>	Other current assets	\$ 13,475	\$ 11,998
		(476)	

Edgar Filing: ARCH COAL INC - Form 10-K

<b>Coal</b>	Accrued expenses and other current liabilities		
	Coal derivative assets	15,191	18,807
	Coal derivative liabilities	(4,947)	(2,244)
		<b>\$ 23,719</b>	<b>\$ 28,085</b>

The Company had a current asset for the right to reclaim cash collateral of \$10.3 million and \$12.5 million at December 31, 2010 and 2009, respectively. These amounts are not included with the derivatives presented in the table above and are included in other current assets in the accompanying consolidated balance sheets.

F-17

---

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The effects of derivatives on measures of financial performance are as follows:

**Year Ended December 31,**

(In thousands)	Gain on Derivatives Used in Fair Value Hedge		Hedged Items in Fair Value Hedge	Loss on Hedged Items In Fair Value Hedge	
	Fair Value Hedging Relationships	Relationships 2010      2009 (In thousands)		Relationships	Relationships 2010      2009 (In thousands)
Coal	\$ 3	\$ 2,5863	Firm commitments	\$ 3	\$ (2,586)3
			Gains (Losses)		Gain (Loss) Recognized in Income (Ineffective Portion and Amount Excluded from Effectiveness
Derivatives used in	Gain (Loss) Recognized in OCI		Reclassified from OCI into Income	Testing) 2010      2009	
Cash Flow Hedging Relationships	(Effective Portion) 2010      2009		(Effective Portion) 2010      2009	2010      2009	
Heating oil	\$ (149)	\$ 10,309	\$ 437 <sup>2</sup>	\$ (49,055) <sup>2</sup>	\$ \$
Coal sales	(4,714)	(7,441)	(1,602) <sup>1</sup>	(6,999) <sup>1</sup>	
Coal purchases	5,145	1,089	(1,202) <sup>2</sup>	(13,181) <sup>2</sup>	
Totals	\$ 282	\$ 3,957	\$ (2,367)	\$ (69,235)	\$ \$

**Derivatives Not Designated as  
Hedging Instruments**

	Gain (Loss)	
	2010	2009
Coal unrealized	\$ (10,991) <sup>3</sup>	\$ 9,673 <sub>3</sub>
Coal realized	\$ 4,542 <sub>4</sub>	\$ 4

**Location in Statement of Income:**

- 1** Coal sales
- 2** Cost of coal sales

- 3 Change in fair value of coal derivatives and coal trading activities, net**
- 4 Other operating income, net**

During the years ended December 31, 2010 and 2009, the Company recognized net unrealized and realized gains of \$2.1 million and \$2.4 million, respectively, related to its trading portfolio. These balances are included in the caption

Change in fair value of coal derivatives and coal trading activities, net in the accompanying consolidated statements of income and are not included in the previous table.

During the next twelve months, based on fair values at December 31, 2010, gains on derivative contracts designated as hedge instruments in cash flow hedges of approximately \$12.6 million are expected to be reclassified from other comprehensive income into earnings.

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****8. Accrued Expenses and Other Current Liabilities**

Accrued expenses and other current liabilities consist of the following:

	<b>December 31</b>	
	<b>2010</b>	<b>2009</b>
	(In thousands)	
Payroll and employee benefits	\$ 51,327	\$ 41,773
Taxes other than income taxes	107,969	88,980
Interest	52,843	55,557
Workers compensation (see Note 13)	6,659	7,439
Asset retirement obligations (see Note 12)	8,862	5,315
Other	17,751	28,652
	\$ 245,411	\$ 227,716

**9. Taxes***Income taxes*

The Company is subject to U.S. federal income tax as well as income tax in multiple state jurisdictions. The tax years 2005 through 2010 remain open to examination for U.S. federal income tax matters and 1998 through 2010 remain open to examination for various state income tax matters.

Significant components of the provision for (benefit from) income taxes are as follows:

	<b>Year Ended December 31</b>		
	<b>2010</b>	<b>2009</b>	<b>2008</b>
	(In thousands)		
Current:			
Federal	\$ 34,304	\$ 21,295	\$ 24,066
State	2,283	864	1,027
Total current	36,587	22,159	25,093
Deferred:			
Federal	(18,506)	(39,492)	35,545
State	(367)	558	(18,864)
Total deferred	(18,873)	(38,934)	16,681
	\$ 17,714	\$ (16,775)	\$ 41,774

**Edgar Filing: ARCH COAL INC - Form 10-K**

A reconciliation of the statutory federal income tax expense on the Company's pretax income to the actual provision for (benefit from) income taxes follows:

	<b>Year Ended December 31</b>		
	<b>2010</b>	<b>2009</b>	<b>2008</b>
	(In thousands)		
Income tax expense at statutory rate	\$ 61,800	\$ 8,888	\$ 138,637
Percentage depletion allowance	(49,152)	(29,463)	(45,336)
State taxes, net of effect of federal taxes	2,299	(61)	4,060
Change in valuation allowance	(383)	725	(57,973)
Other, net	3,150	3,136	2,386
	 \$ 17,714	 \$ (16,775)	 \$ 41,774

F-19

---

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

In 2010, 2009 and 2008, compensatory stock options and other equity based compensation awards were exercised resulting in a tax expense (benefit) of \$(0.8) million, \$0.2 million and \$(9.8) million, respectively. The tax benefit will be recorded to paid-in capital at such point in time when a cash tax benefit is recognized.

Significant components of the Company's deferred tax assets and liabilities that result from carryforwards and temporary differences between the financial statement basis and tax basis of assets and liabilities are summarized as follows:

	<b>December 31</b>	
	<b>2010</b>	<b>2009</b>
	(In thousands)	
<b>Deferred tax assets:</b>		
Alternative minimum tax credit carryforwards	\$ 170,592	\$ 142,070
Net operating loss carryforwards	102,355	118,643
Reclamation and mine closure	71,533	59,648
Advance royalties	38,557	33,749
Retiree benefit plans	15,366	31,352
Plant and equipment	19,846	19,004
Workers' compensation	14,788	13,604
Other	80,378	59,877
 Gross deferred tax assets	 513,415	 477,947
Valuation allowance	(737)	(1,120)
 Total deferred tax assets	 512,678	 476,827
<b>Deferred tax liabilities:</b>		
Deferred development	76,690	72,163
Investment in tax partnerships	68,538	45,189
Other	13,669	10,507
 Total deferred tax liabilities	 158,897	 127,859
 Net deferred tax asset	 353,781	 348,968
Current liability	(7,775)	(5,901)
 Long-term deferred tax asset	 \$ 361,556	 \$ 354,869

The Company has net operating loss carryforwards for regular income tax purposes of \$102.4 million at December 31, 2010 that will expire between 2011 and 2030. The Company has an alternative minimum tax credit carryforward of \$170.6 million at December 31, 2010, which has no expiration date and can be used to offset future regular tax in excess of the alternative minimum tax.

During 2008, the Company reached a settlement with the IRS regarding the Company's treatment of the acquisition of the coal operations of Atlantic Richfield Company ( ARCO ) and the simultaneous combination of the acquired ARCO

Edgar Filing: ARCH COAL INC - Form 10-K

operations and the Company's Wyoming operations into the Arch Western joint venture. The settlement did not result in a net change in deferred tax assets, but involved a re-characterization of deferred tax assets, including an increase in net operating loss carryforwards of \$145.1 million and other amortizable assets which will provide additional tax deductions through 2013. A portion of these future cash tax benefits accrue to ARCO pursuant to the original purchase agreement, including \$1.3 million, \$4.8 million and \$6.8 million paid in 2010, 2009 and 2008, respectively, that was recorded as goodwill.

The Company has recorded a valuation allowance for a portion of its deferred tax assets that management believes, more likely than not, will not be realized. Management reassesses the ability to realize its deferred tax assets annually in the fourth quarter or when circumstances indicate that the ability to realize deferred tax assets

F-20

---

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

has changed. In determining the appropriate valuation allowance, the assessment takes into account expected future taxable income and available tax planning strategies. This review resulted in increases (decreases) in the valuation allowance of \$(0.4) million, \$0.7 million and \$(61.9) million in 2010, 2009 and 2008, respectively. Of the decrease in 2008, \$3.9 million related to the exercise of compensatory stock options and was recorded in paid in capital. The valuation allowance at December 31, 2010 and 2009 relates to certain state net operating loss benefits.

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

Balance at January 1, 2008	\$ 4,070
Additions based on tax positions related to the current year	122
Additions for tax positions of prior years	909
Reductions for tax positions of prior years	(223)
Balance at December 31, 2008	4,878
Additions based on tax positions related to the current year	1,593
Additions for tax positions of prior years	205
Reductions for tax positions of prior years	(6)
Balance at December 31, 2009	6,670
Additions based on tax positions related to the current year	1,493
Additions for tax positions of prior years	85
Reductions for tax positions of prior years	(3,830)
Balance at December 31, 2010	\$ 4,418

If recognized, the entire amount of the gross unrecognized tax benefits at December 31, 2010 would affect the effective tax rate.

The Company recognizes interest and penalties accrued related to unrecognized tax benefits in income tax expense. The Company had approximately \$0.6 million of interest and penalties accrued at December 31, 2010 of which \$0.1 million was recognized during 2010. No gross unrecognized tax benefits are expected to be reduced in the next 12 months due to the expiration of the statute of limitations.

#### *Other taxes*

The Emergency Economic Stabilization Act (the Act) enacted on October 3, 2008 enabled certain coal producers to file for refunds of black lung excise taxes paid on export sales subsequent to October 1, 1990, along with interest computed at statutory rates. The Company filed for a refund under the Act and recognized a refund of \$11.0 million plus interest of \$10.3 million in the fourth quarter of 2008. The Company recorded additional income of \$6.8 million during 2009, to adjust the estimated amount to be received, of which \$6.1 million is reflected in interest income in the accompanying consolidated income statement, with the remainder in cost of coal sales.

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****10. Debt and Financing Arrangements**

Debt consists of the following:

	<b>December 31</b>	
	<b>2010</b>	<b>2009</b>
	(In thousands)	
Commercial paper	\$ 56,904	\$ 49,453
Indebtedness to banks under credit facilities		204,000
6.75% senior notes (\$450.0 million and \$950.0 million face value, respectively) due July 1, 2013	451,618	954,782
8.75% senior notes (\$600.0 million face value) due August 1, 2016	587,126	585,441
7.25% senior notes (\$500.0 million face value) due October 1, 2020	500,000	
Other	14,093	14,011
	1,609,741	1,807,687
Less current maturities and short-term borrowings	70,997	267,464
Long-term debt	\$ 1,538,744	\$ 1,540,223

The current maturities of debt include amounts borrowed that are supported by credit facilities that have a term of less than one year and amounts borrowed under credit facilities with terms longer than one year that the Company does not intend to refinance on a long-term basis, based on cash projections and management's plans.

***Refinancing of senior notes***

On August 9, 2010, the Company issued \$500.0 million in aggregate principal amount of 7.25% senior unsecured notes due in 2020 at par. The Company used the net proceeds from the offering and cash on hand to fund the redemption on September 8, 2010 of \$500.0 million aggregate principal amount of its outstanding 6.75% senior notes at a redemption price of 101.125%. The Company recognized a loss on the redemption of \$6.8 million, including the payment of the \$5.6 million redemption premium and the write-off of \$3.3 million of unamortized debt financing costs, partially offset by the write-off of \$2.1 million of the original issue premium on the 6.75% senior notes.

***Commercial Paper***

On August 15, 2007, the Company entered into a commercial paper placement program, as amended, to provide short-term financing at rates that are generally lower than the rates available under the revolving credit facility. Under the commercial paper program, the Company may sell interest-bearing or discounted short-term unsecured debt obligations with maturities of no more than 270 days. Market conditions have impacted the Company's ability to issue commercial paper, and the Company amended the program on March 25, 2010 to decrease the maximum aggregate principal amount outstanding to \$75.0 million from \$100.0 million. The commercial paper placement program is supported by a revolving credit facility, which is subject to renewal annually and expires on April 30, 2011. As of December 31, 2010, the weighted-average interest rate of the Company's outstanding commercial paper was 1.45% and maturity dates ranged from 3 to 55 days.

***Credit Facilities and Availability***

The Company maintains a secured credit facility that allows for up to \$860.0 million in borrowings until June 23, 2011, when it will decrease to \$762.5 million. New banks may join the credit facility after June 23, 2011, subject to an aggregate maximum borrowing amount of \$800.0 million. On March 19, 2010, the Company entered into an amendment that enables Arch Coal to make certain intercompany loans to its subsidiary, Arch Western without repaying the existing loan from Arch Western to Arch Coal.

**Table of Contents****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Borrowings under the credit facility bear interest at a floating rate based on LIBOR determined by reference to the Company's leverage ratio, as calculated in accordance with the credit agreement. The Company's credit facility is secured by substantially all of its assets as well as its ownership interests in substantially all of its subsidiaries, except its ownership interests in Arch Western and its subsidiaries. Commitment fees are payable on the average unused daily balance of the revolving credit facility. As of December 31, 2010, the weighted-average commitment fees were 0.625% per annum. Financial covenant requirements may restrict the amount of unused capacity available to the Company for borrowings and letters of credit.

The Company maintains an accounts receivable securitization program under which eligible trade receivables are sold, without recourse, to a multi-seller, asset-backed commercial paper conduit. The entity through which these receivables are sold is consolidated into the Company's financial statements. The Company may borrow and draw letters of credit against the facility, and pays facility fees, program fees and letter of credit fees (based on amounts of outstanding letters of credit) at rates that vary with its leverage ratio, as defined under the program. On March 31, 2009, the Company entered into an amendment to its accounts receivable securitization program that revised certain terms to strengthen the credit quality of the pool of receivables and increased the interest rate. On February 24, 2010, the Company entered into another amendment that revised certain terms to expand the pool of receivables included in the program. The size of the program continues to allow for aggregate borrowings and letters of credit of up to \$175.0 million limited by eligible accounts receivable, as defined under the terms of the agreement. The credit facility supporting the borrowings under the program is subject to renewal annually, and expires on January 30, 2012.

As of December 31, 2010, the Company had no borrowings outstanding under the revolving credit facility and \$120.0 million outstanding as of December 31, 2009. The Company had no borrowings under the accounts receivable securitization program at December 31, 2010 and borrowings of \$84.0 million at December 31, 2009. For the year ended December 31, 2010, our average borrowing level under these programs was approximately \$132.0 million. The Company also had letters of credit under the securitization program of \$65.5 million as of December 31, 2010. At December 31, 2010, the Company had available borrowing capacity under the revolving credit facility and the accounts receivable securitization program of \$860.0 million and \$109.5 million, respectively.

***6.75% senior notes***

The 6.75% senior notes were issued by the Company's subsidiary, Arch Western Finance LLC (Arch Western Finance), under an indenture dated June 25, 2003. The senior notes are guaranteed by Arch Western and certain of its subsidiaries and are secured by an intercompany notes from Arch Coal, Inc. to Arch Western. The terms of the senior notes contain restrictive covenants that limit Arch Western's ability to, among other things, incur additional debt, sell or transfer assets, and make certain investments. Of the aggregate principal outstanding at December 31, 2010 and 2009, \$118.4 and \$250.0 million, respectively, of the 6.75% notes were issued at a premium of 104.75% of par. The premium is amortized over the term of the notes. Interest is payable on the notes on January 1 and July 1 of each year. The redemption price of the notes, reflected as a percentage of the principal amount, is 101.25% for notes redeemed before July 1, 2011 and 100% for notes redeemed on or after July 1, 2011.

***8.75% senior notes***

On July 31, 2009, the Company issued \$600.0 million in aggregate principal amount of 8.75% senior unsecured notes due 2016 at an initial issue price of 97.464% of the face amount. The Company deferred issue costs of \$14.5 million in association with the 8.75% senior notes. Interest is payable on the notes on February 1 and August 1 of each year. At any time on or after August 1, 2013, the Company may redeem some or all of the notes. The redemption price, reflected as a percentage of the principal amount, is: 104.375% for notes redeemed between August 1, 2013 and

Edgar Filing: ARCH COAL INC - Form 10-K

July 31, 2014; 102.188% for notes redeemed between August 1, 2014 and July 31, 2015; and 100% for notes redeemed on or after August 1, 2015. In addition, at any time and from time to time, prior to August 1, 2012, on one or more occasions, the Company may redeem an aggregate principal amount of senior notes not to exceed 35% of the original aggregate principal amount of the senior

F-23

---

**Table of Contents****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

notes outstanding with the proceeds of one or more public equity offerings, at a redemption price equal to 108.750%.

***7.25% senior notes***

Interest is payable on the 7.25% senior unsecured notes due in 2020 on April 1 and October 1 of each year, commencing April 1, 2011. At any time on or after October 1, 2015, the Company may redeem some or all of the notes. The redemption price reflected as a percentage of the principal amount is: 103.625% for notes redeemed between October 1, 2015 and September 30, 2016; 102.417% for notes redeemed between October 1, 2016 and September 30, 2017; 101.208% for notes redeemed between October 1, 2017 and September 30, 2018; and 100% for notes redeemed on or after October 1, 2018. In addition, at any time and from time to time, prior to October 1, 2013, on one or more occasions, the Company may redeem an aggregate principal amount of senior notes not to exceed 35% of the original aggregate principal amount of the senior notes outstanding with the proceeds of one or more public equity offerings, at a redemption price equal to 107.250%.

The 8.75% and 7.25% senior notes are guaranteed by most of the Company's subsidiaries, except for Arch Western and its subsidiaries and Arch Receivable Company, LLC.

Expected aggregate maturities of debt for the next five years are \$71.0 million in 2011, \$0 in 2012, \$450.0 million in 2013, \$0 in 2014 and \$0 in 2015.

Terms of the Company's credit facilities and leases contain financial and other covenants that limit the ability of the Company to, among other things, acquire, dispose, merge or consolidate assets; incur additional debt; pay dividends and make distributions or repurchase stock; make investments; create liens; issue and sell capital stock of subsidiaries; enter into restrictions affecting the ability of restricted subsidiaries to make distributions, loans or advances to the Company; engage in transactions with affiliates and enter into sale and leaseback transactions. The terms also require the Company to, among other things, maintain various financial ratios and comply with various other financial covenants, including an interest coverage ratio test, as defined in the indentures. In addition, the covenants require the Company to pledge assets to collateralize the revolving credit facility. The assets pledged include equity interests in wholly-owned subsidiaries, certain real property interests, accounts receivable and inventory of the Company. Failure by the Company to comply with such covenants could result in an event of default, which, if not cured or waived, could have a material adverse effect on the Company. The Company complied with all financial covenants at December 31, 2010.

**11. Fair Values of Financial Instruments**

Inputs to fair value techniques are prioritized according to a fair value hierarchy, as defined below, that gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs.

Level 1 is defined as observable inputs such as quoted prices in active markets for identical assets. Level 1 assets include available-for-sale equity securities and coal futures that are submitted for clearing on the New York Mercantile Exchange.

Level 2 is defined as observable inputs other than Level 1 prices. These include quoted prices for similar assets or liabilities in an active market, quoted prices for identical assets and liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. The Company's level 2 assets and liabilities include commodity contracts (coal

Edgar Filing: ARCH COAL INC - Form 10-K

and heating oil) with quoted prices in over-the-counter markets or direct broker quotes.

Level 3 is defined as unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions. These include the Company's commodity option contracts

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

(primarily coal and heating oil) valued using modeling techniques, such as Black-Scholes, that require the use of inputs, particularly volatility, that are rarely observable.

The table below sets forth, by level, the Company's financial assets and liabilities that are accounted for at fair value:

	<b>Fair Value at December 31, 2010</b>			
	<b>Total</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
	(In thousands)			
Assets:				
Available-for-sale investments	\$ 8,071	\$ 7,236	\$	\$ 835
Derivatives	28,666	2,005	17,873	8,788
Total assets	\$ 36,737	\$ 9,241	\$ 17,873	\$ 9,623
Liabilities:				
Derivatives	\$ 4,947	\$	\$ 4,507	\$ 440

The Company's contracts with certain of its counterparties allow for the settlement of contracts in an asset position with contracts in a liability position in the event of default or termination. For classification purposes, the Company records the net fair value of all the positions with these counterparties as a net asset or liability. Each level in the table above displays the underlying contracts according to their classification in the accompanying consolidated balance sheets, based on this counterparty netting.

The following table summarizes the change in the net fair value of financial instruments categorized as level 3.

	<b>Year Ended December 31, 2010 (In thousands)</b>	
Beginning balance	\$	8,217
Gains (losses), realized or unrealized		(10,356)
Recognized in earnings		593
Recognized in other comprehensive income		10,729
Settlements, purchases and issuances		\$ 9,183
Ending balance	\$	9,183

Net unrealized losses during the twelve months ended December 31, 2010 related to level 3 financial instruments held on December 31, 2010 were \$0.7 million.

***Fair Value of Long-Term Debt***

## Edgar Filing: ARCH COAL INC - Form 10-K

At December 31, 2010 and 2009, the fair value of the Company's senior notes and other long-term debt, including amounts classified as current, was \$1,708.6 million and \$1,844.1 million, respectively. Fair values are based upon observed prices in an active market, when available, or from valuation models using market information.

### **12. Asset Retirement Obligations**

The Company's asset retirement obligations arise from the Federal Surface Mining Control and Reclamation Act of 1977 and similar state statutes, which require that mine property be restored in accordance with specified standards and an approved reclamation plan. The required reclamation activities to be performed are outlined in the Company's mining permits. These activities include reclaiming the pit and support acreage at surface mines, sealing portals at underground mines, and reclaiming refuse areas and slurry ponds.

F-25

---

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The Company reviews its asset retirement obligation at least annually and makes necessary adjustments for permit changes as granted by state authorities and for revisions of estimates of the amount and timing of costs. For ongoing operations, adjustments to the liability result in an adjustment to the corresponding asset. For idle operations, adjustments to the liability are recognized as income or expense in the period the adjustment is recorded.

The following table describes the changes to the Company's asset retirement obligation liability:

	Year Ended December 31	
	2010	2009
	(In thousands)	
Balance at January 1 (including current portion)	\$ 310,409	\$ 258,851
Accretion expense	26,615	23,427
Additions resulting from acquisition of Jacobs Ranch		75,109
Adjustments to the liability from changes in estimates	8,934	(43,709)
Liabilities settled	(2,839)	(3,269)
Balance at December 31	\$ 343,119	\$ 310,409
Current portion included in accrued expenses	(8,862)	(5,315)
Noncurrent liability	\$ 334,257	\$ 305,094

The reduction in the liability of \$43.7 million in 2009 resulted from changes to the Black Thunder mine's pit configuration upon the integration of the Jacobs Ranch mining operations.

As of December 31, 2010, the Company had \$122.2 million in surety bonds outstanding and \$406.2 million in self-bonding to secure reclamation obligations.

### **13. Accrued Workers Compensation**

The Company is liable under the Federal Mine Safety and Health Act of 1969, as subsequently amended, to provide for pneumoconiosis (occupational disease) benefits to eligible employees, former employees, and dependents. The Company is also liable under various states' statutes for occupational disease benefits. The Company currently provides for federal and state claims principally through a self-insurance program. The occupational disease benefit obligation is determined by independent actuaries, at the present value of the actuarially computed present and future liabilities for such benefits over the employees' applicable years of service.

In addition, the Company is liable for workers' compensation benefits for traumatic injuries that are accrued as injuries are incurred. Traumatic claims are either covered through self-insured programs or through state-sponsored workers' compensation programs.

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Workers compensation expense consists of the following components:

	<b>Year Ended December 31</b>		
	<b>2010</b>	<b>2009</b>	<b>2008</b>
	(In thousands)		
Self-insured occupational disease benefits:			
Service cost	\$ 727	\$ 531	\$ 481
Interest cost	675	558	449
Net amortization	(1,860)	(2,879)	(3,882)
Total occupational disease	(458)	(1,790)	(2,952)
Traumatic injury claims and assessments	9,263	8,904	10,277
Total workers compensation expense	\$ 8,805	\$ 7,114	\$ 7,325

Net amortization represents the systematic recognition of actuarial gains or losses over a five-year period.

The reconciliation of changes in the benefit obligation of the occupational disease liability is as follows:

	<b>December 31</b>	
	<b>2010</b>	<b>2009</b>
	(In thousands)	
Beginning of year obligation	\$ 9,702	\$ 7,413
Service cost	727	531
Interest cost	675	558
Actuarial loss	6,993	1,913
Benefit and administrative payments	(685)	(713)
Net obligation at end of year	\$ 17,412	\$ 9,702

The increase in the actuarial loss in 2010 is due to changes in estimates primarily resulting from the passing of the Patient Protection and Affordable Care Act, which extended and expanded occupational disease benefits.

At December 31, 2010 and 2009, accumulated gains of \$2.0 million and \$10.9 million, respectively, were not yet recognized in occupational disease cost and were recorded in accumulated other comprehensive income. The expected accumulated gain that will be amortized from accumulated other comprehensive income into occupational disease cost in 2011 is \$0.4 million.

The following table provides the assumptions used to determine the projected occupational disease obligation:

Edgar Filing: ARCH COAL INC - Form 10-K

	<b>Year Ended December 31</b>		
	<b>2010</b>	<b>2009</b>	<b>2008</b>
Weighted average assumptions:			
Discount rate	5.96%	6.11%	6.65%
Cost escalation rate	3.00%	3.00%	3.00%

F-27

---

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Summarized below is information about the amounts recognized in the accompanying consolidated balance sheets for workers' compensation benefits:

	<b>December 31</b>	
	<b>2010</b>	<b>2009</b>
	(In thousands)	
Occupational disease costs	\$ 17,412	\$ 9,702
Traumatic and other workers' compensation claims	24,537	26,847
Total obligations	41,949	36,549
Less amount included in accrued expenses	6,659	7,439
Noncurrent obligations	\$ 35,290	\$ 29,110

As of December 31, 2010, the Company had \$63.2 million in surety bonds and letters of credit outstanding to secure workers' compensation obligations.

#### **14. Employee Benefit Plans**

##### ***Defined Benefit Pension and Other Postretirement Benefit Plans***

The Company provides funded and unfunded non-contributory defined benefit pension plans covering certain of its salaried and hourly employees. Benefits are generally based on the employee's age and compensation. The Company funds the plans in an amount not less than the minimum statutory funding requirements or more than the maximum amount that can be deducted for U.S. federal income tax purposes.

The Company also currently provides certain postretirement medical and life insurance coverage for eligible employees. Generally, covered employees who terminate employment after meeting eligibility requirements are eligible for postretirement coverage for themselves and their dependents. The salaried employee postretirement benefit plans are contributory, with retiree contributions adjusted annually, and contain other cost-sharing features such as deductibles and coinsurance. The Company's current funding policy is to fund the cost of all postretirement benefits as they are paid.

During 2009, the Company notified participants of the retiree medical plan of a plan change increasing the retirees' responsibility for medical costs. This change resulted in a remeasurement of the postretirement benefit obligation, which included a decrease in the discount rate from 6.85% to 5.68%. The remeasurement resulted in a decrease in the liability of \$21.0 million, with a corresponding increase to other comprehensive income, and will result in future reductions in costs under the plan.

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

*Obligations and Funded Status.* Summaries of the changes in the benefit obligations, plan assets and funded status of the plans are as follows:

	<b>Pension Benefits</b>	<b>Other Postretirement Benefits</b>		
	<b>2010</b>	<b>2009</b>	<b>2010</b>	<b>2009</b>
	(In thousands)			
<b>CHANGE IN BENEFIT OBLIGATIONS</b>				
Benefit obligations at January 1	\$ 280,693	\$ 240,578	\$ 46,445	\$ 60,836
Service cost	15,870	13,444	1,509	2,954
Interest cost	15,822	15,946	2,083	3,667
Plan amendments	(92)			(28,561)
Benefits paid	(15,924)	(13,834)	(1,845)	(2,573)
Acquisition of Jacobs Ranch		1,542		2,506
Other-primarily actuarial loss (gain)	1,338	23,017	(8,559)	7,616
Benefit obligations at December 31	\$ 297,707	\$ 280,693	\$ 39,633	\$ 46,445
<b>CHANGE IN PLAN ASSETS</b>				
Value of plan assets at January 1	\$ 211,899	\$ 166,304	\$	\$
Actual return on plan assets	34,401	40,648		
Employer contributions	17,337	18,781	1,845	2,573
Benefits paid	(15,924)	(13,834)	(1,845)	(2,573)
Value of plan assets at December 31	\$ 247,713	\$ 211,899	\$	\$
Accrued benefit cost	\$ (49,994)	\$ (68,794)	\$ (39,633)	\$ (46,445)
<b>ITEMS NOT YET RECOGNIZED AS A COMPONENT OF NET PERIODIC BENEFIT COST</b>				
Prior service credit (cost)	\$ (1,310)	\$ (1,575)	\$ 9,742	\$ 12,106
Accumulated gain (loss)	(39,099)	(59,899)	11,965	6,324
	\$ (40,409)	\$ (61,474)	\$ 21,707	\$ 18,430
<b>BALANCE SHEET AMOUNTS</b>				
Current liability	\$ (840)	\$ (528)	\$ (1,840)	\$ (2,580)
Noncurrent liability	\$ (49,154)	\$ (68,266)	\$ (37,793)	\$ (43,865)
	\$ (49,994)	\$ (68,794)	\$ (39,633)	\$ (46,445)

*Pension Benefits*

**Edgar Filing: ARCH COAL INC - Form 10-K**

The accumulated benefit obligation for all pension plans was \$280.4 million and \$263.7 million at December 31, 2010 and 2009, respectively. The accumulated benefit obligation differs from the benefit obligation in that it includes no assumption about future compensation levels.

The benefit obligation and the accumulated benefit obligation for the Company's unfunded pension plan were \$7.3 million and \$6.2 million, respectively, at December 31, 2010.

The prior service cost and net loss that will be amortized from accumulated other comprehensive income into net periodic benefit cost in 2011 are \$0.2 million and \$8.6 million, respectively.

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)***Other Postretirement Benefits*

The prior service credit and net gain that will be amortized from accumulated other comprehensive income into net periodic benefit cost in 2011 is \$2.4 million and \$2.4 million, respectively.

The postretirement plan amendment in 2009 relates to an increase in retirees' responsibility for medical costs and the related remeasurement of other postretirement benefit obligation as discussed above.

*Components of Net Periodic Benefit Cost.* The following table details the components of pension and other postretirement benefit costs.

Year Ended December 31,	Pension Benefits			Other Postretirement Benefits		
	2010	2009	2008 (In thousands)	2010	2009	2008
Service cost	\$ 15,870	\$ 13,444	\$ 12,917	\$ 1,509	\$ 2,954	\$ 2,937
Interest cost	15,822	15,946	14,636	2,083	3,667	3,716
Expected return on plan assets*	(19,392)	(17,719)	(17,932)			
Amortization of prior service cost (credit)	173	193	(213)	(2,364)	2,161	3,458
Amortization of other actuarial losses (gains)	7,130	3,967	3,213	(2,918)	(2,897)	(3,644)
Curtailments		585				
Net benefit cost	\$ 19,603	\$ 16,416	\$ 12,621	\$ (1,690)	\$ 5,885	\$ 6,467

\* The Company does not fund its other postretirement benefit obligations.

The differences generated from changes in assumed discount rates and returns on plan assets are amortized into earnings over a five-year period.

*Assumptions.* The following table provides the assumptions used to determine the actuarial present value of projected benefit obligations at December 31.

	Pension Benefits		Other Postretirement Benefits	
	2010	2009	2010	2009
Weighted average assumptions:				
Discount rate	5.71%	5.97%	5.23%	5.67%
Rate of compensation increase	3.39%	3.39%	N/A	N/A

Edgar Filing: ARCH COAL INC - Form 10-K

The following table provides the assumptions used to determine net periodic benefit cost for years ended December 31.

	Pension Benefits			Other Postretirement Benefits		
	2010	2009	2008	2010	2009	2008
<b>Weighted average assumptions:</b>						
Discount rate	5.97%	6.85%	6.50%	5.67%	6.85%/5.68%	6.50%
Rate of compensation increase	3.39%	3.39%	3.39%	N/A	N/A	N/A
Expected return on plan assets	8.50%	8.50%	8.50%	N/A	N/A	N/A

The Company establishes the expected long-term rate of return at the beginning of each fiscal year based upon historical returns and projected returns on the underlying mix of invested assets. The Company utilizes modern portfolio theory modeling techniques in the development of its return assumptions. This technique projects rates of return that can be generated through various asset allocations that lie within the risk tolerance set forth by members of the Company's pension committee (the "Pension Committee"). The risk assessment

F-30

---

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

provides a link between a pension's risk capacity, management's willingness to accept investment risk and the asset allocation process, which ultimately leads to the return generated by the invested assets.

The health care cost trend rate assumed for 2011 is 7.9% and is expected to reach an ultimate trend rate of 4.5% by 2028. A one-percentage-point increase in the health care cost trend rate would have increased the postretirement benefit obligation at December 31, 2010 by \$0.4 million. A one-percentage-point decrease in the health care cost trend rate would have decreased the postretirement benefit obligation at December 31, 2010 by \$0.4 million. The effect of these changes would have had an insignificant impact on the net periodic postretirement benefit costs.

*Plan Assets*

The Pension Committee is responsible for overseeing the investment of pension plan assets. The Pension Committee is responsible for determining and monitoring appropriate asset allocations and for selecting or replacing investment managers, trustees and custodians. The pension plan's current investment targets are 65% equity, 30% fixed income securities and 5% cash. The Pension Committee reviews the actual asset allocation in light of these targets on a periodic basis and rebalances among investments as necessary. The Pension Committee evaluates the performance of investment managers as compared to the performance of specified benchmarks and peers and monitors the investment managers to ensure adherence to their stated investment style and to the plan's investment guidelines.

The Company's pension plan assets at December 31, 2010 and 2009, respectively, are categorized below according to the fair value hierarchy as defined in Note 11, Fair Values of Financial Instruments :

	Total		Level 1		Level 2		Level 3	
	2010	2009	2010	2009	2010	2009	2010	2009
	(In thousands)							
<b>Equity securities:<sup>(A)</sup></b>								
U.S. small-cap	\$ 10,647	\$	\$ 10,647	\$	\$	\$	\$	\$
U.S. mid-cap	46,851	50,411	21,163	29,884	25,688	20,527		
U.S. large-cap	77,632	58,520	38,397	33,255	39,235	25,265		
Non-U.S.	24,995	14,466			24,995	14,466		
<b>Fixed income securities:</b>								
U.S. government securities <sup>(B)</sup>	3,053	11,582	2,492	11,582	561			
Non-U.S. government securities <sup>(C)</sup>	3,469	955			3,469	955		
U.S. government asset and mortgage backed securities <sup>(D)</sup>	1,073	979			1,073	979		
Corporate fixed income <sup>(E)</sup>	13,737	14,959			13,737	14,959		
State and local government securities <sup>(F)</sup>	13,679	6,386			13,679	6,386		
Other fixed income <sup>(G)</sup>	45,628	43,283			45,628	43,283		
<b>Short-term investments<sup>(H)</sup></b>	<b>6,110</b>	<b>5,975</b>	<b>1,616</b>	<b>6,110</b>	<b>4,359</b>			
<b>Other investments<sup>(I)</sup></b>	<b>839</b>	<b>4,383</b>	<b>4,245</b>	<b>839</b>	<b>138</b>			

Edgar Filing: ARCH COAL INC - Form 10-K

<b>Total</b>	\$ 247,713	\$ 211,899	\$ 72,699	\$ 80,582	\$ 175,014	\$ 131,317	\$	\$
--------------	------------	------------	-----------	-----------	------------	------------	----	----

- (A) Equity securities includes investments in 1) common stock, 2) preferred stock and 3) mutual funds. Investments in common and preferred stocks are valued using quoted market prices multiplied by the number of shares owned. Investments in mutual funds are valued at the net asset value per share multiplied by the number of shares held as of the measurement date and are traded on listed exchanges.
- (B) U.S. government securities includes agency and treasury debt. These investments are valued using dealer quotes in an active market.
- (C) Non-U.S. government securities includes debt securities issued by foreign governments and are valued utilizing a price spread basis valuation technique with observable sources from investment dealers and research vendors.
- (D) U.S. government asset and mortgage backed securities includes government-backed mortgage funds which are valued utilizing an income approach that includes various valuation techniques and sources such as discounted cash flows models, benchmark yields and securities, reported trades, issuer trades and/or other applicable data.
- (E) Corporate fixed income is primarily comprised of corporate bonds and certain corporate asset-backed securities that are denominated in the U.S. dollar and are investment-grade securities. These investments are valued using dealer quotes.

F-31

---

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

- (F) State and local government securities include different U.S. state and local municipal bonds and asset backed securities, these investments are valued utilizing a market approach that includes various valuation techniques and sources such as value generation models, broker quotes, benchmark yields and securities, reported trades, issuer trades and/or other applicable data.
- (G) Other fixed income investments are actively managed fixed income vehicles that are valued at the net asset value per share multiplied by the number of shares held as of the measurement date.
- (H) Short-term investments include governmental agency funds, government repurchase agreements, commingled funds, and pooled funds and mutual funds. Governmental agency funds are valued utilizing an option adjusted spread valuation technique and sources such as interest rate generation processes, benchmark yields and broker quotes. Investments in governmental repurchase agreements, commingled funds and pooled funds and mutual funds are valued at the net asset value per share multiplied by the number of shares held as of the measurement date.
- (I) Other investments includes cash, forward contracts, derivative instruments, credit default swaps, interest rate swaps and mutual funds. Investments in interest rate swaps are valued utilizing a market approach that includes various valuation techniques and sources such as value generation models, broker quotes in active and non-active markets, benchmark yields and securities, reported trades, issuer trades and/or other applicable data. Forward contracts and derivative instruments are valued at their exchange listed price or broker quote in an active market. The mutual funds are valued at the net asset value per share multiplied by the number of shares held as of the measurement date and are traded on listed exchanges.

*Cash Flows.* In order to achieve a desired funded status, the Company expects to make contributions of \$37.6 million to the pension plans in 2011.

The following represents expected future benefit payments, which reflect expected future service, as appropriate:

	<b>Pension Benefits</b>	<b>Other Postretirement Benefits</b>	<b>(In thousands)</b>
2011	\$ 15,428	\$ 3,143	
2012	17,989	3,369	
2013	20,707	3,556	
2014	22,279	3,745	
2015	21,994	3,984	
Years 2016-2020	155,033	21,494	
	\$ 253,430	\$ 39,291	

***Other Plans***

## Edgar Filing: ARCH COAL INC - Form 10-K

The Company sponsors savings plans which were established to assist eligible employees provide for their future retirement needs. The Company's expense, representing its contributions to the plans, was \$18.1 million, \$15.9 million and \$16.7 million for the years ended December 31, 2010, 2009 and 2008, respectively.

### **15. Capital Stock**

On March 14, 2006, the Company filed a registration statement on Form S-3 with the SEC. The registration statement allows the Company to offer, from time to time, an unlimited amount of debt securities, preferred stock, depositary shares, purchase contracts, purchase units, common stock and related rights and warrants.

#### ***Common Stock***

On July 31, 2009, the Company sold 17 million shares of its common stock at a public offering price of \$17.50 per share and on August 6, 2009, the Company issued an additional 2.55 million shares of its common stock under the same terms and conditions to cover underwriters' over-allotments. The net proceeds received from the issuance of common stock were \$326.5 million, which was used primarily to finance the purchase of the Jacobs Ranch mining complex in 2009.

F-32

---

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)*****Preferred Stock***

In January 2008, 84,376 shares of the Company's 5% Perpetual Cumulative Convertible Preferred Stock ( "Preferred Stock" ) were converted into 404,735 shares of the Company's common stock. On February 1, 2008, the Company redeemed the remaining 505 shares of Preferred Stock at the redemption price of \$50.00 per share.

***Stock Repurchase Plan***

The Company's share repurchase program allows for the purchase of up to 14,000,000 shares of the Company's common stock. At December 31, 2010, 10,925,800 shares of common stock were available for repurchase under the plan. During 2008, the Company repurchased 1,511,800 shares of its common stock under the repurchase program at an average cost of \$35.62 per share. There were no purchases made under the plan during 2010 or 2009. There is no expiration date on the program. Any future repurchases under the plan will be made at management's discretion and will depend on market conditions and other factors.

**16. Stock Based Compensation and Other Incentive Plans**

Under the Company's Stock Incentive Plan (the "Incentive Plan"), 18,000,000 shares of the Company's common stock are reserved for awards to officers and other selected key management employees of the Company. The Incentive Plan provides the Board of Directors with the flexibility to grant stock options, stock appreciation rights, restricted stock awards, restricted stock units, performance stock or units, merit awards, phantom stock awards and rights to acquire stock through purchase under a stock purchase program ( "Awards" ). Awards the Board of Directors elects to pay out in cash do not count against the 18,000,000 shares authorized in the Incentive Plan. The Incentive Plan calls for the adjustment of shares awarded under the plan in the event of a split.

As of December 31, 2010, the Company had stock options, restricted stock and restricted stock units outstanding under the Incentive Plan.

***Stock Options***

Stock options are granted at a price equal to the closing market price of the Company's common stock on the date of grant and are generally subject to vesting provisions of at least one year from the date of grant. Information regarding stock option activity under the Incentive Plan follows for the year ended December 31, 2010:

	Common Shares (In thousands)	Weighted Average Exercise Price	Aggregate Intrinsic Value (In thousands)	Average Contract Life
Options outstanding at January 1	3,935	\$ 25.17		
Granted	778	22.64		
Exercised	(155)	11.39		
Canceled	(14)	30.22		

Edgar Filing: ARCH COAL INC - Form 10-K

Options outstanding at December 31	4,544	25.18	\$ 59,919	6.10
Options exercisable at December 31	2,643	25.51	33,993	4.47

The aggregate intrinsic value of options exercised during the years ended December 31, 2010, 2009 and 2008 was \$3.0 million, \$0.1 million and \$24.7 million, respectively.

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Information regarding changes in stock options outstanding and not yet vested and the related grant-date fair value under the Incentive Plan follows for the year ended December 31, 2010:

	<b>Common Shares (In thousands)</b>	<b>Weighted Average Grant-Date Fair Value</b>
Unvested options at January 1	1,899	\$ 12.36
Granted	778	9.43
Vested	(768)	13.73
Canceled	(8)	9.57
Unvested options at December 31	1,901	10.61

Compensation expense related to stock options for the years ended December 31, 2010, 2009 and 2008 was \$10.6 million, \$11.8 million and \$10.7 million, respectively. As of December 31, 2010, there was \$7.6 million of unrecognized compensation cost related to the unvested stock options. The total grant-date fair value of options vested during the years ended December 31, 2010, 2009 and 2008 was \$10.6 million, \$9.1 million and \$4.4 million, respectively. The options provide for the continuation of vesting for retirement-eligible recipients that meet certain criteria. The expense for these options is recognized through the date that the employee first becomes eligible to retire and is no longer required to provide service to earn part or all of the award. The majority of the cost relating to the stock-based compensation plans is included in selling, general and administrative expenses in the accompanying consolidated statements of income.

Weighted average assumptions used in the Black-Scholes option pricing model for granted options follow:

	<b>Year Ended December 31</b>		
	<b>2010</b>	<b>2009</b>	<b>2008</b>
Weighted average grant-date fair value per share of options granted	\$ 9.43	\$ 6.63	\$ 21.29
Assumptions (weighted average):			
Risk-free interest rate	2.16%	1.75%	2.86%
Expected dividend yield	1.99%	2.56%	0.6%
Expected volatility	57.1%	69.3%	45.7%
Expected life (in years)	4.5	4.5	4.7

Expected volatilities are based on historical stock price movement and implied volatility from traded options on the Company's stock. The expected life of the option was determined based on historical exercise activity. Most options granted vest over a period of four years.

#### ***Restricted Stock and Restricted Stock Unit Awards***

## Edgar Filing: ARCH COAL INC - Form 10-K

The Company may issue restricted stock and restricted stock units, which require no payment from the employee. Restricted stock cliff-vests at various dates and restricted stock units typically vest ratably over three years. Compensation expense is based on the fair value on the grant date and is recorded ratably over the vesting period. During the vesting period, the employee receives cash compensation equal to the amount of dividends that would have been paid on the underlying shares.

F-34

---

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Information regarding restricted stock and restricted stock unit activity and weighted average grant-date fair value follows for the year ended December 31, 2010:

	Restricted Stock			Restricted Stock Units		
	Common Shares (In thousands)	Weighted Average Grant-Date Fair Value	Common Shares (In thousands)	Weighted Average Grant-Date Fair Value		
Outstanding at January 1	76	\$ 27.43	54	\$ 52.69		
Granted	12	22.03				
Vested	(12)	32.66				
Canceled	(2)	56.84				
Outstanding at December 31	74	24.69	54	52.69		

The weighted average fair value of restricted stock granted during 2009 and 2008 was \$14.05 and \$49.05, respectively. There were no restricted stock units granted during 2009. The weighted average fair value of restricted stock units granted during 2008 was \$52.69. The total grant-date fair value of restricted stock that vested during 2010, 2009 and 2008 was \$0.4 million, \$1.5 million and \$1.0 million, respectively. The total grant-date fair value of restricted stock units that vested during 2009 and 2008 was \$0.4 million and \$1.9 million, respectively. Unearned compensation of \$1.4 million will be recognized over the remaining vesting period of the outstanding restricted stock and restricted stock units. The Company recognized expense of approximately \$1.1 million, \$1.7 million and \$1.9 million related to restricted stock and restricted stock units for the years ended December 31, 2010, 2009 and 2008, respectively.

***Long-Term Incentive Compensation***

The Company has a long-term incentive program that allows for the award of performance units. The total number of units earned by a participant is based on financial and operational performance measures, and may be paid out in cash or in shares of the Company's common stock. The Company recognizes compensation expense over the three year term of the grant. The basis of the compensation costs are revalued quarterly. The Company recognized \$3.8 million, \$2.6 million and \$6.7 million for the years ended December 31, 2010, 2009 and 2008, respectively. The expense is included in selling, general and administrative expenses in the accompanying consolidated statements of income. Amounts accrued under the plan were \$6.4 million and \$2.6 million at December 31, 2010 and 2009, respectively.

***Performance-Contingent Phantom Stock Awards***

During the year ended December 31, 2008, certain stock price and EBITDA performance measurements were satisfied under performance-contingent phantom stock awards awarded to all of the Company's executives, and the Company issued 0.2 million shares of common stock and paid cash of \$3.5 million under the awards. The Company recognized \$1.1 million of expense under this award in the year ended December 31, 2008. The expense is included in selling, general and administrative expenses in the accompanying consolidated statements of income.

***Deferred Compensation Plan***

The Company maintains a deferred compensation plan that allows eligible employees to defer receipt of compensation until the dates elected by the participant. Participants in the plan may defer up to 85% of their base salaries and up to 100% of their annual incentive awards. The plan also allows participants to defer receipt of up to 100% of the shares under any restricted stock unit or performance-contingent stock awards. The amounts deferred are invested in accounts that mirror the gains and losses of a number of different investment funds, including a hypothetical investment in shares of the Company's common stock. Participants are always

F-35

---

**Table of Contents****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

vested in their deferrals to the plan and any related earnings. The Company has established a grantor trust to fund the obligations under the plan. The trust has purchased corporate-owned life insurance to offset these obligations. The policies are recorded at their net cash surrender values of \$40.7 million and \$37.2 million at December 31, 2010 and 2009, respectively. The participants have an unsecured contractual commitment by the Company to pay the amounts due under the plan. Any assets placed in trust by the Company to fund future obligations of the plan are subject to the claims of creditors in the event of insolvency or bankruptcy, and participants are general creditors of the company as to their deferred compensation in the plans.

Under the plan, the Company credits each participant's account with the number of units equal to the number of shares or units that the participant could purchase or receive with the amount of compensation deferred, based upon the fair market value of the underlying investment on that date. The amount the employee will receive from the plan will be based on the number of units credited to each participant's account, valued on the basis of the fair market value of an equivalent number of shares or units of the underlying investment on that date. The liability under the plan was \$38.5 million at December 31, 2010 and \$29.6 million at December 31, 2009.

The Company's net income (expense) related to the deferred compensation plan for the years ended December 31, 2010, 2009 and 2008 was \$(2.8) million, \$4.1 million and \$(2.3) million, respectively, most of which is included in selling, general and administrative expenses in the accompanying consolidated statements of income.

## **17. Risk Concentrations**

### ***Credit Risk and Major Customers***

The Company has a formal written credit policy that establishes procedures to determine creditworthiness and credit limits for trade customers and counterparties in the over-the-counter coal market. Generally, credit is extended based on an evaluation of the customer's financial condition. Collateral is not generally required, unless credit cannot be established. Credit losses are provided for in the financial statements and historically have been minimal.

The Company markets its steam coal principally to electric utilities in the United States and its metallurgical coal to domestic and foreign steel producers. Sales to customers in foreign countries were \$471.5 million, \$194.4 million and \$486.1 million for the years ended December 31, 2010, 2009 and 2008, respectively. The increase in export sales in 2010 is primarily the result of an increase in metallurgical coal sales volumes. As of December 31, 2010 and 2009, accounts receivable from electric utilities located in the United States totaled \$141.8 million and \$119.0 million, respectively, or 68% and 62% of total trade receivables, respectively.

The Company is committed under long-term contracts to supply coal that meets certain quality requirements at specified prices. These prices are generally adjusted based on indices. Quantities sold under some of these contracts may vary from year to year within certain limits at the option of the customer. The Company sold approximately 162.8 million tons of coal in 2010. Approximately 77% of this tonnage (representing approximately 66% of the Company's revenue) was sold under long-term contracts (contracts having a term of greater than one year). Long-term contracts range in remaining life from one to seven years. Sales (including spot sales) to the Company's largest customer, Tennessee Valley Authority, were \$301.4 million, \$278.8 million and \$416.5 million for the years ended December 31, 2010, 2009 and 2008, respectively.

### ***Third-party sources of coal***

## Edgar Filing: ARCH COAL INC - Form 10-K

The Company uses independent contractors to mine coal at certain mining complexes. The Company also purchases coal from third parties that it sells to customers. Factors beyond the Company's control could affect the availability of coal produced for or purchased by the Company. Disruptions in the quantities of coal

F-36

---

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

produced for or purchased by the Company could impair its ability to fill customer orders or require it to purchase coal from other sources at prevailing market prices in order to satisfy those orders.

***Transportation***

The Company depends upon barge, rail, truck and belt transportation systems to deliver coal to its customers. Disruption of these transportation services due to weather-related problems, mechanical difficulties, strikes, lockouts, bottlenecks, and other events could temporarily impair the Company's ability to supply coal to its customers, resulting in decreased shipments. In the past, disruptions in rail service have resulted in missed shipments and production interruptions.

**18. Earnings per Common Share**

The following table provides the basis for earnings per share calculations by reconciling basic and diluted weighted average shares outstanding:

	Year Ended December 31		
	2010	2009	2008
	(In thousands)		
<b>Weighted average shares outstanding:</b>			
Basic weighted average shares outstanding	162,398	150,963	143,604
Effect of common stock equivalents under incentive plans	812	309	779
Effect of common stock equivalents arising from Preferred Stock			33
 Diluted weighted average shares outstanding	 163,210	 151,272	 144,416

The effect of options to purchase 2.5 million, 2.2 million and 0.8 million shares of common stock were excluded from the calculation of diluted weighted average shares outstanding for the years ended December 31, 2010, 2009 and 2008, respectively, because the exercise price of these options exceeded the average market price of the Company's common stock for this period.

**19. Leases**

The Company leases equipment, land and various other properties under non-cancelable long-term leases, expiring at various dates. Certain leases contain options that would allow the Company to extend the lease or purchase the leased asset at the end of the base lease term. In addition, the Company enters into various non-cancelable royalty lease agreements under which future minimum payments are due.

Minimum payments due in future years under these agreements in effect at December 31, 2010 are as follows:

Operating Leases	Royalties
(In thousands)	

Edgar Filing: ARCH COAL INC - Form 10-K

2011	\$ 31,862	\$ 31,388
2012	28,559	14,792
2013	24,550	15,786
2014	22,344	18,469
2015	15,152	18,948
Thereafter	18,131	69,412
	\$ 140,598	\$ 168,795

F-37

---

**Table of Contents****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Rental expense, including amounts related to these operating leases and other shorter-term arrangements, amounted to \$41.6 million in 2010, \$43.3 million in 2009 and \$42.8 million in 2008. Royalty expense, including production royalties, was \$286.8 million in 2010, \$230.5 million in 2009 and \$259.2 million in 2008.

As of December 31, 2010, certain of the Company's lease obligations were secured by outstanding surety bonds totaling \$50.8 million.

## **20. Guarantees**

On December 31, 2005, the Company sold the stock of three subsidiaries and their four associated mining operations and coal reserves in Central Appalachia to Magnum Coal Company (Magnum) under the Purchase and Sale Agreement (the Purchase Agreement). The Company has agreed to continue to provide surety bonds and letters of credit for reclamation and retiree healthcare obligations related to the properties the Company sold to Magnum. The Purchase Agreement requires Magnum to reimburse the Company for costs related to the surety bonds and letters of credit and to use commercially reasonable efforts to replace the obligations. If the surety bonds and letters of credit related to the reclamation obligations are not replaced by Magnum within a specified period of time, Magnum must post a letter of credit in favor of the Company in the amounts of the reclamation obligations. At December 31, 2010, the Company had \$91.4 million of surety bonds related to properties sold to Magnum. The surety bonding amounts are mandated by the state and are not directly related to the estimated cost to reclaim the properties. Patriot Coal Corporation acquired Magnum in July 2008, and has posted letters of credit in the Company's favor for \$32.7 million.

Magnum also acquired certain coal supply contracts with customers who did not consent to the assignment of the contract from the Company to Magnum. The Company has committed to purchase coal from Magnum to sell to those customers at the same price it is charging the customers for the sale. In addition, certain contracts were assigned to Magnum, but the Company has guaranteed performance under the contracts. The longest of the coal supply contracts extends to the year 2017. If Magnum is unable to supply the coal for these coal sales contracts then the Company would be required to purchase coal on the open market or supply contracts from its existing operations. At market prices effective at December 31, 2010, the cost of purchasing 11.5 million tons of coal to supply the contracts that have not been assigned over their duration would exceed the sales price under the contracts by approximately \$394.7 million, and the cost of purchasing 1.5 million tons of coal to supply the assigned and guaranteed contracts over their duration would exceed the sales price under the contracts by approximately \$32.4 million. As the Company does not believe that it is probable that it would have to purchase replacement coal, no losses have been recorded in the consolidated financial statements as of December 31, 2010. However, if the Company would have to perform under these guarantees, it could potentially have a material adverse effect on the business, results of operations and financial condition of the Company.

In connection with the Company's acquisition of the coal operations of ARCO and the simultaneous combination of the acquired ARCO operations and the Company's Wyoming operations into the Arch Western joint venture, the Company agreed to indemnify the other member of Arch Western against certain tax liabilities in the event that such liabilities arise prior to June 1, 2013 as a result of certain actions taken, including the sale or other disposition of certain properties of Arch Western, the repurchase of certain equity interests in Arch Western by Arch Western or the reduction under certain circumstances of indebtedness incurred by Arch Western in connection with the acquisition. If the Company were to become liable, the maximum amount of potential future tax payments was \$31.0 million at December 31, 2010, which is not recorded as a liability in the Company's consolidated financial statements. Since the indemnification is dependent upon the initiation of activities within the Company's control and the Company does not intend to initiate such activities, it is remote that the Company will become liable for any obligation related to this indemnification. However, if such indemnification obligation were to arise, it could potentially have a material

Edgar Filing: ARCH COAL INC - Form 10-K

adverse effect on the business, results of operations and financial condition of the Company.

F-38

---

**Table of Contents**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**21. Contingencies**

The Company is a party to numerous claims and lawsuits with respect to various matters. The Company provides for costs related to contingencies when a loss is probable and the amount is reasonably determinable. After conferring with counsel, it is the opinion of management that the ultimate resolution of pending claims will not have a material adverse effect on the consolidated financial condition, results of operations or liquidity of the Company.

**22. Segment Information**

The Company has three reportable business segments, which are based on the major low-sulfur coal basins in which the Company operates. Each of these reportable business segments includes a number of mine complexes. The Company manages its coal sales by coal basin, not by individual mine complex. Geology, coal transportation routes to customers, regulatory environments and coal quality are generally consistent within a basin. Accordingly, market and contract pricing have developed by coal basin. Mine operations are evaluated based on their per-ton operating costs (defined as including all mining costs but excluding pass-through transportation expenses), as well as on other non-financial measures, such as safety and environmental performance. The Company's reportable segments are the Powder River Basin (PRB) segment, with operations in Wyoming; the Western Bituminous (WBIT) segment, with operations in Utah, Colorado and southern Wyoming; and the Central Appalachia (CAPP) segment, with operations in southern West Virginia, eastern Kentucky and Virginia.

Operating segment results for the years ended December 31, 2010, 2009 and 2008 are presented below. Results for the operating segments include all direct costs of mining, including all depreciation, depletion and amortization related to the mining operations, even if the assets are not recorded at the operating segment level. See discussion of segment assets below. Corporate, Other and Eliminations includes the change in fair value of coal derivatives and coal trading activities, net; corporate overhead; land management; other support functions; and the elimination of intercompany transactions.

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The amounts in total assets below represent an allocation of assets used in the segments cash-generating activities. The amounts in the Corporate, Other and Eliminations represent primarily corporate assets (cash, receivables, investments, plant, property and equipment) as well as goodwill, unassigned coal reserves, above-market acquired sales contracts and other unassigned assets.

	<b>PRB</b>	<b>WBIT</b>	<b>CAPP (In thousands)</b>	<b>Corporate, Other and Eliminations</b>	<b>Consolidated</b>
<b>December 31, 2010</b>					
Coal sales	\$ 1,606,236	\$ 537,542	\$ 1,042,490	\$ (74,596)	\$ 3,186,268
Income from operations	146,555	58,082	193,943		323,984
Total assets	2,295,786	677,611	706,624	1,200,748	4,880,769
Depreciation, depletion and amortization	185,218	80,497	97,764	1,587	365,066
Amortization of acquired sales contracts, net	35,606				35,606
Capital expenditures	38,142	65,470	70,839	140,206	314,657
<b>December 31, 2009</b>					
Coal sales	\$ 1,205,492	\$ 540,694	\$ 829,895	\$ (93,590)	\$ 2,576,081
Income from operations	82,341	29,722	105,241		123,714
Total assets	2,421,917	687,873	734,309	996,497	4,840,596
Depreciation, depletion and amortization	127,378	83,781	88,409	2,040	301,608
Amortization of acquired sales contracts, net	19,934	(311)			19,623
Capital expenditures	58,275	67,299	48,673	148,903	323,150
<b>December 31, 2008</b>					
Coal sales	\$ 1,162,056	\$ 659,389	\$ 1,162,361	\$ (65,722)	\$ 2,983,806
Income from operations	109,032	121,261	296,699		461,270
Total assets	1,577,260	685,383	782,951	933,370	3,978,964
Depreciation, depletion and amortization	117,417	82,215	92,189	1,732	293,553
Amortization of acquired sales contracts, net	336	(1,041)			(705)
Capital expenditures	123,909	162,698	81,860	128,880	497,347

A reconciliation of segment income from operations to consolidated income before income taxes follows:

	<b>Year Ended December 31</b>		
	<b>2010</b>	<b>2009</b>	<b>2008</b>
	<b>(In thousands)</b>		
Income from operations	\$ 323,984	\$ 123,714	\$ 461,270

Edgar Filing: ARCH COAL INC - Form 10-K

Interest expense	(142,549)	(105,932)	(76,139)
Interest income	2,449	7,622	11,854
Loss on early extinguishment of debt	(6,776)		
Income before income taxes	\$ 177,108	\$ 25,404	\$ 396,985

F-40

---

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****23. Quarterly Financial Information (Unaudited)**

Quarterly financial data for the years ended December 31, 2010 and 2009 is summarized below:

	<b>March 31</b> <b>(a)</b>	<b>June 30</b> <b>(a)</b>	<b>September 30</b> <b>(b)</b>	<b>December 31</b> <b>(b)</b>
	<b>(In thousands, except per share data)</b>			
<b>2010:</b>				
Coal sales	\$ 711,874	\$ 764,295	\$ 874,705	\$ 835,394
Gross profit	61,852	100,461	119,957	107,514
Income from operations	32,200	106,499	98,347	86,938
Net income (loss)	(1,770)	66,274	46,859	48,031
Basic earnings (loss) per common share	(0.01)	0.41	0.29	0.29
Diluted earnings (loss) per common share	(0.01)	0.41	0.29	0.29
	<b>March 31</b> <b>(c)(d)</b>	<b>June 30</b> <b>(c)</b>	<b>September 30</b> <b>(c)</b>	<b>December 31</b> <b>(c)</b>
	<b>(In thousands, except per share data)</b>			
<b>2009:</b>				
Coal sales	\$ 681,040	\$ 554,612	\$ 614,957	\$ 725,472
Gross profit	60,873	18,614	54,199	50,449
Income from operations	38,572	7,309	48,338	29,495
Net income (loss)	30,572	(15,161)	25,216	1,552
Basic earnings (loss) per common share	0.21	(0.11)	0.16	0.01
Diluted earnings (loss) per common share	0.21	(0.11)	0.16	0.01

- (a) In the second quarter of 2010, the Company exchanged 68.4 million tons of coal reserves in the Illinois Basin for an additional 9% ownership interest in Knight Hawk. The Company recognized a gain of \$41.6 million on the transaction.
- (b) The Company's Dugout Canyon mine in Carbon County, Utah suspended operations on April 29, 2010 after an increase in carbon monoxide levels resulted from a heating event in a previously mined area. After permanently sealing the area, full coal production resumed on May 21, 2010. On June 22, 2010, an ignition event at the longwall resulted in a second evacuation of all underground employees at the mine. All employees were safely evacuated in both events. The resumption of mining required rendering the mine's atmosphere inert, ventilating the longwall area, determining the cause of the ignition, implementing preventive measures, and securing an MSHA-approved longwall ventilation plan. The longwall system resumed production at normalized levels by the end of September. In 2009, we shipped an average of 0.8 million tons per quarter from the Dugout Canyon mine. As a result of the outages in the second and third quarters, we shipped 0.6 million in the second quarter of 2010 and 0.2 million in the third quarter of 2010 from the Dugout Canyon mine.
- (c)

The Jacobs Ranch mining complex was acquired on October 1, 2009 for \$768.8 million. We expensed costs related to the acquisition of \$3.4 million, \$3.0 million, \$0.8 million, and \$6.5 million in the first, second, third and fourth quarters of 2009, respectively.

- (d) In the first quarter of 2009, the Company recognized income of \$6.8 million to adjust its estimate of black lung excise tax refunds.

## **24. Supplemental Condensed Consolidating Financial Information**

Pursuant to the indenture governing the Arch Coal, Inc. senior notes, certain wholly-owned subsidiaries of the Company have fully and unconditionally guaranteed the senior notes on a joint and several basis. The following tables present unaudited condensed consolidating financial information for (i) the Company, (ii) the issuer of the senior notes, (iii) the guarantors under the Notes, and (iv) the entities which are not guarantors under the Notes (Arch Western Resources, LLC and Arch Receivable Company, LLC):

F-41

---

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****CONDENSED CONSOLIDATING STATEMENTS OF INCOME  
Year Ended December 31, 2010**

	<b>Parent/Issuer</b>	<b>Guarantor Subsidiaries</b>	<b>Non-Guarantor Subsidiaries</b>	<b>Eliminations</b>	<b>Consolidated</b>
			(In thousands)		
<b>REVENUE</b>					
Coal sales	\$	\$ 1,137,980	\$ 2,048,288	\$	\$ 3,186,268
<b>COSTS, EXPENSES AND OTHER</b>					
Cost of coal sales	11,526	797,917	1,679,872	(93,503)	2,395,812
Depreciation, depletion and amortization	2,933	194,847	167,286		365,066
Amortization of acquired sales contracts, net			35,606		35,606
Selling, general and administrative expenses	79,580	7,355	38,496	(7,254)	118,177
Change in fair value of coal derivatives and coal trading activities, net		8,924			8,924
Gain on Knight Hawk transaction		(41,577)			(41,577)
Other operating (income) expense, net	(10,259)	(115,994)	5,772	100,757	(19,724)
	83,780	851,472	1,927,032		2,862,284
Income from investment in subsidiaries	393,366			(393,366)	
Income from operations	309,586	286,508	121,256	(393,366)	323,984
Interest expense, net:					
Interest expense	(143,606)	(2,763)	(64,463)	68,283	(142,549)
Interest income	11,128	456	59,148	(68,283)	2,449
	(132,478)	(2,307)	(5,315)		(140,100)
Other non-operating expense					
Loss on early extinguishment of debt			(6,776)		(6,776)
			(6,776)		(6,776)
Income before income taxes	177,108	284,201	109,165	(393,366)	177,108
Provision for income taxes	17,714				17,714
Net income	159,394	284,201	109,165	(393,366)	159,394

Edgar Filing: ARCH COAL INC - Form 10-K

Less: Net income attributable to noncontrolling interest	(537)	(537)			
Net income attributable to Arch Coal	\$ 158,857	\$ 284,201	\$ 109,165	\$ (393,366)	\$ 158,857

F-42

---

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****CONDENSED CONSOLIDATING STATEMENTS OF INCOME  
Year Ended December 31, 2009**

	<b>Guarantor</b> <b>Parent/Issuer</b>	<b>Subsidiaries</b>	<b>Non-Guarantor</b> <b>Subsidiaries</b>	<b>Eliminations</b>	<b>Consolidated</b>
					(In thousands)
<b>REVENUE</b>					
Coal sales	\$	\$ 924,692	\$ 1,651,389	\$	\$ 2,576,081
<b>COSTS, EXPENSES AND OTHER</b>					
Cost of coal sales	7,481	713,782	1,398,663	(49,211)	2,070,715
Depreciation, depletion and amortization	3,678	138,125	159,805		301,608
Amortization of acquired sales contracts, net			19,623		19,623
Selling, general and administrative expenses	49,672	7,504	46,563	(5,952)	97,787
Change in fair value of coal derivatives and coal trading activities, net		(12,056)			(12,056)
Costs related to acquisition of Jacobs Ranch	13,726				13,726
Other operating (income) expense, net	(12,909)	(85,460)	4,170	55,163	(39,036)
	61,648	761,895	1,628,824		2,452,367
Income from investment in subsidiaries	165,183			(165,183)	
Income from operations	103,535	162,797	22,565	(165,183)	123,714
Interest expense, net:					
Interest expense	(92,371)	(2,442)	(70,668)	59,549	(105,932)
Interest income	14,240	720	52,211	(59,549)	7,622
	(78,131)	(1,722)	(18,457)		(98,310)
Income before income taxes	25,404	161,075	4,108	(165,183)	25,404
Benefit from income taxes	(16,775)				(16,775)
Net income	42,179	161,075	4,108	(165,183)	42,179
Less: Net income attributable to noncontrolling interest	(10)				(10)
Net income attributable to Arch Coal	\$ 42,169	\$ 161,075	\$ 4,108	\$ (165,183)	\$ 42,169



Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****CONDENSED CONSOLIDATING STATEMENTS OF INCOME  
Year Ended December 31, 2008**

	<b>Parent/Issuer</b>	<b>Guarantor Subsidiaries</b>	<b>Non-Guarantor Subsidiaries</b>	<b>Eliminations</b>	<b>Consolidated</b>
			(In thousands)		
<b>REVENUE</b>					
Coal sales	\$ 937	\$ 1,224,861	\$ 1,758,008	\$	\$ 2,983,806
<b>COSTS, EXPENSES AND OTHER</b>					
Cost of coal sales	3,905	821,959	1,395,176	(37,118)	2,183,922
Depreciation, depletion and amortization	3,122	135,012	155,419		293,553
Amortization of acquired sales contracts, net			(705)		(705)
Selling, general and administrative expenses	71,094	8,662	34,502	(7,137)	107,121
Change in fair value of coal derivatives and coal trading activities, net		(55,093)			(55,093)
Other operating (income) expense, net	(10,950)	(49,706)	10,139	44,255	(6,262)
	67,171	860,834	1,594,531		2,522,536
Income from investment in subsidiaries	535,452			(535,452)	
Income from operations	469,218	364,027	163,477	(535,452)	461,270
Interest expense, net:					
Interest expense	(103,642)	(5,493)	(77,757)	110,753	(76,139)
Interest income	31,409	3,735	87,463	(110,753)	11,854
	(72,233)	(1,758)	9,706		(64,285)
Income before income taxes	396,985	362,269	173,183	(535,452)	396,985
Provision for income taxes	41,774				41,774
Net income	355,211	362,269	173,183	(535,452)	355,211
Less: Net income attributable to noncontrolling interest	(881)				(881)
Net income attributable to Arch Coal	\$ 354,330	\$ 362,269	\$ 173,183	\$ (535,452)	\$ 354,330



Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****CONDENSED CONSOLIDATING BALANCE SHEETS  
December 31, 2010**

	<b>Parent/Issuer</b>	<b>Guarantor Subsidiaries</b>	<b>Non-Guarantor Subsidiaries</b>	<b>Eliminations</b>	<b>Consolidated</b>
			(In thousands)		
<b>ASSETS</b>					
Cash and cash equivalents	\$ 13,713	\$ 64	\$ 79,816	\$ (1,953)	\$ 93,593
Receivables	31,458	12,740	210,075		252,320
Inventories		85,196	150,420		235,616
Other	29,575	102,375	21,435		153,385
Total current assets	74,746	200,375	461,746	(1,953)	734,914
Property, plant and equipment, net	9,817	1,800,578	1,498,497		3,308,892
Investment in subsidiaries	4,555,233			(4,555,233)	
Intercompany receivables	(1,807,902)	508,624	1,299,278		
Note receivable from Arch Western	225,000			(225,000)	
Other	481,345	344,698	10,920		836,963
Total other assets	3,453,676	853,322	1,310,198	(4,780,233)	836,963
<b>Total assets</b>	<b>\$ 3,538,239</b>	<b>\$ 2,854,275</b>	<b>\$ 3,270,441</b>	<b>\$ (4,782,186)</b>	<b>\$ 4,880,769</b>
<b>LIABILITIES AND STOCKHOLDERS EQUITY</b>					
Accounts payable	\$ 10,753	\$ 65,793	\$ 121,670	\$ 198,216	
Accrued expenses and other current liabilities	75,746	31,123	153,217	(1,953)	258,133
Current maturities of debt and short-term borrowings	14,093		56,904		70,997
Total current liabilities	100,592	96,916	331,791	(1,953)	527,346
Long-term debt	1,087,126		451,618		1,538,744
Note payable to Arch Coal			225,000	(225,000)	
Asset retirement obligations	873	32,029	301,355		334,257
Accrued pension benefits	20,843	4,407	23,904		49,154
Accrued postretirement benefits other than pension	14,284		23,509		37,793
Accrued workers' compensation	15,383	13,805	6,102		35,290
Other noncurrent liabilities	51,187	22,135	36,912		110,234
<b>Total liabilities</b>	<b>1,290,288</b>	<b>169,292</b>	<b>1,400,191</b>	<b>(226,953)</b>	<b>2,632,818</b>

Edgar Filing: ARCH COAL INC - Form 10-K

Redeemable noncontrolling interest	10,444				10,444
Stockholders equity	2,237,507	2,684,983	1,870,250	(4,555,233)	2,237,507
Total liabilities and stockholders equity	\$ 3,538,239	\$ 2,854,275	\$ 3,270,441	\$ (4,782,186)	\$ 4,880,769

F-45

---

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****CONDENSED CONSOLIDATING BALANCE SHEETS  
December 31, 2009**

	<b>Parent/Issuer</b>	<b>Guarantor Subsidiaries</b>	<b>Non-Guarantor Subsidiaries</b> <b>(In thousands)</b>	<b>Eliminations</b>	<b>Consolidated</b>
<b>ASSETS</b>					
Cash and cash equivalents	\$ 54,255	\$ 64	\$ 6,819	\$	\$ 61,138
Receivables	16,339	15,574	199,457		231,370
Inventories		75,126	165,650		240,776
Other	28,741	101,407	23,350		153,498
Total current assets	99,335	192,171	395,276		686,782
Property, plant and equipment, net	7,783	1,809,340	1,549,063		3,366,186
Investment in subsidiaries	4,127,075			(4,127,075)	
Intercompany receivables	(1,679,003)	232,076	1,446,927		
Other	455,972	317,486	14,170		787,628
Total other assets	2,904,044	549,562	1,461,097	(4,127,075)	787,628
Total assets	\$ 3,011,162	\$ 2,551,073	\$ 3,405,436	\$ (4,127,075)	\$ 4,840,596
<b>LIABILITIES AND STOCKHOLDERS EQUITY</b>					
Accounts payable	\$ 12,828	\$ 41,066	\$ 74,508	\$	\$ 128,402
Accrued expenses and other current liabilities	54,957	36,394	144,510		235,861
Current maturities of debt and short-term borrowings	134,012		133,452		267,464
Total current liabilities	201,797	77,460	352,470		631,727
Long-term debt	585,441		954,782		1,540,223
Asset retirement obligations	927	29,253	274,914		305,094
Accrued pension benefits	29,001	4,742	34,523		68,266
Accrued postretirement benefits other than pension	15,046		28,819		43,865
Accrued workers compensation	10,595	14,448	4,067		29,110
Other noncurrent liabilities	44,287	27,213	26,743		98,243
Total liabilities	887,094	153,116	1,676,318		2,716,528
Redeemable noncontrolling interest	8,962				8,962

Edgar Filing: ARCH COAL INC - Form 10-K

Stockholders equity	2,115,106	2,397,957	1,729,118	(4,127,075)	2,115,106
Total liabilities and stockholders equity	\$ 3,011,162	\$ 2,551,073	\$ 3,405,436	\$ (4,127,075)	\$ 4,840,596

F-46

---

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****CONDENSED CONSOLIDATING STATEMENTS OF CASH FLOWS  
Year Ended December 31, 2010**

	<b>Parent/Issuer</b>	<b>Guarantor Subsidiaries</b>	<b>Non-Guarantor Subsidiaries</b>	<b>Consolidated</b>
		(In thousands)		
Cash provided by (used in) operating activities	\$ (238,736)	\$ 503,766	\$ 432,117	\$ 697,147
Investing Activities				
Capital expenditures	(4,814)	(198,243)	(111,600)	(314,657)
Proceeds from dispositions of property, plant and equipment		251	79	330
Additions to prepaid royalties		(24,381)	(2,974)	(27,355)
Purchases of investments and advances to affiliates	(40,421)	(5,764)		(46,185)
Consideration paid related to prior business acquisitions	(1,262)			(1,262)
Cash used in investing activities	(46,497)	(228,137)	(114,495)	(389,129)
Financing Activities				
Proceeds from the issuance of long-term debt	500,000			500,000
Repayments of long-term debt, including redemption premium			(505,627)	(505,627)
Net decrease in borrowings under lines of credit and commercial paper program	(120,000)		(76,549)	(196,549)
Net proceeds from other debt	82			82
Debt financing costs	(12,022)		(729)	(12,751)
Dividends paid	(63,373)			(63,373)
Issuance of common stock under incentive plans	1,764			1,764
Contribution from non-controlling interest			891	891
Transactions with affiliates, net	(61,760)	(275,629)	337,389	
Cash provided by (used in) financing activities	244,691	(275,629)	(244,625)	(275,563)
Increase (decrease) in cash and cash equivalents	(40,542)		72,997	32,455
Cash and cash equivalents, beginning of period	54,255	64	6,819	61,138
Cash and cash equivalents, end of period	\$ 13,713	\$ 64	\$ 79,816	\$ 93,593

Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****CONDENSED CONSOLIDATING STATEMENTS OF CASH FLOWS  
Year Ended December 31, 2009**

	<b>Parent/Issuer</b>	<b>Guarantor Subsidiaries</b>	<b>Non-Guarantor Subsidiaries</b>	<b>Consolidated</b>
		(In thousands)		
Cash provided by (used in) operating activities	\$ (168,427)	\$ 338,956	\$ 212,451	\$ 382,980
Investing Activities				
Capital expenditures	(2,940)	(194,756)	(125,454)	(323,150)
Payments made to acquire Jacob's Ranch	(768,819)			(768,819)
Proceeds from dispositions of property, plant and equipment		734	91	825
Additions to prepaid royalties		(23,991)	(2,764)	(26,755)
Purchases of investments and advances to affiliates	(8,000)	(2,925)		(10,925)
Consideration paid related to prior business acquisitions	(4,767)			(4,767)
Reimbursement of deposits on equipment			3,209	3,209
Cash used in investing activities	(784,526)	(220,938)	(124,918)	(1,130,382)
Financing Activities				
Proceeds from the issuance of long-term debt	584,784			584,784
Proceeds from the sale of common stock	326,452			326,452
Net decrease in borrowings under lines of credit and commercial paper program	(85,000)		(815)	(85,815)
Net payments on other debt	(2,986)			(2,986)
Debt financing costs	(29,456)		(203)	(29,659)
Dividends paid	(54,969)			(54,969)
Issuance of common stock under incentive plans	84			84
Transactions with affiliates, net	200,562	(118,015)	(82,547)	
Cash provided by (used in) financing activities	939,471	(118,015)	(83,565)	737,891
Increase (decrease) in cash and cash equivalents	(13,482)	3	3,968	(9,511)
Cash and cash equivalents, beginning of period	67,737	61	2,851	70,649
Cash and cash equivalents, end of period	\$ 54,255	\$ 64	\$ 6,819	\$ 61,138



Table of Contents**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****CONDENSED CONSOLIDATING STATEMENTS OF CASH FLOWS  
Year Ended December 31, 2008**

	<b>Parent/Issuer</b>	<b>Guarantor Subsidiaries</b>	<b>Non-Guarantor Subsidiaries</b>	<b>Consolidated</b>
		(In thousands)		
Cash provided by (used in) operating activities	\$ (176,710)	\$ 446,029	\$ 409,818	\$ 679,137
Investing Activities				
Capital expenditures	(3,210)	(207,530)	(286,607)	(497,347)
Proceeds from dispositions of property, plant and equipment		757	378	1,135
Additions to prepaid royalties		(19,229)	(535)	(19,764)
Purchases of investments and advances to affiliates	(3,000)	(4,466)		(7,466)
Consideration paid related to prior business acquisitions	(6,800)			(6,800)
Reimbursement of deposits on equipment			2,697	2,697
Cash used in investing activities	(13,010)	(230,468)	(284,067)	(527,545)
Financing Activities				
Purchases of treasury stock	(53,848)			(53,848)
Net increase (decrease) in borrowings under lines of credit and commercial paper program	45,000		(31,507)	13,493
Net payments on other debt	(2,907)			(2,907)
Debt financing costs			(233)	(233)
Dividends paid	(48,847)			(48,847)
Issuance of common stock under incentive plans	6,319			6,319
Transactions with affiliates, net	306,962	(215,554)	(91,408)	
Cash provided by (used in) financing activities	252,679	(215,554)	(123,148)	(86,023)
Increase in cash and cash equivalents	62,959	7	2,603	65,569
Cash and cash equivalents, beginning of period	4,778	54	248	5,080
Cash and cash equivalents, end of period	\$ 67,737	\$ 61	\$ 2,851	\$ 70,649

Table of Contents

## Schedule

**Schedule II****Arch Coal, Inc. and Subsidiaries****Valuation and Qualifying Accounts**

	<b>Balance at Beginning of Year</b>	<b>Additions (Reductions)</b>	<b>Charged to Costs and Expenses</b>	<b>Charged to Other Accounts</b>	<b>Deductions(a)</b>	<b>Balance at End of Year</b>
						<b>(In thousands)</b>
<b>Year ended December 31, 2010</b>						
Reserves deducted from asset accounts:						
Other assets other notes and accounts receivable	\$ 109	\$	\$	\$	\$ 109	\$
Current assets supplies and inventory	13,406	1,962			2,667	12,701
Deferred income taxes	1,120	(383)				737
<b>Year ended December 31, 2009</b>						
Reserves deducted from asset accounts:						
Other assets other notes and accounts receivable	\$ 225	\$ (17)	\$	\$	\$ 99	\$ 109
Current assets supplies and inventory	12,760	1,302			656	13,406
Deferred income taxes	395	725				1,120
<b>Year ended December 31, 2008</b>						
Reserves deducted from asset accounts:						
Other assets other notes and accounts receivable	\$ 216	\$ 42	\$	\$	\$ 33	\$ 225
Current assets supplies and inventory	13,500	1,548			2,288	12,760
Deferred income taxes	69,326	(57,973)	(3,899)(b)		7,059	395

(a) Reserves utilized, unless otherwise indicated.

(b) Relates to the reversal of tax benefits from the exercise of employee stock options that was recorded as paid-in capital.

Edgar Filing: ARCH COAL INC - Form 10-K

F-50