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

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**FORM 11-K**

(Mark One)

**Annual Report Pursuant to Section 15(d) of the Securities Exchange Act of 1934**

**For the fiscal year ended  
December 31, 2011**

OR

**Transition Report Pursuant  
to Section 15(d) of the  
Securities Exchange Act of  
1934**

**For the transition period  
from to .**

**Commission file number: 1-13105**

**Arch Coal, Inc. Employee Thrift Plan**

(Full title of the plan and the address of the plan, if different from that of the issuer named below)

Name and Address of the issuer of the Securities  
**Held Pursuant to the Plan —**

**Arch Coal, Inc.**

**One CityPlace Drive, Suite 300  
St. Louis, Missouri 63141**

(Name of issuer of the securities held pursuant to the plan and the address of its principal executive office)

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*ARCH COAL, INC.  
EMPLOYEE THRIFT PLAN  
FINANCIAL STATEMENTS  
DECEMBER 31, 2011*

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The Retirement Committee  
Arch Coal, Inc. Employee Thrift Plan  
St. Louis, Missouri

We have audited the accompanying statement of net assets available for benefits of the Arch Coal, Inc. Employee Thrift Plan (the Plan) as of December 31, 2011 and 2010, and the related statement of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements 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 consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, 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 net assets available for benefits of the Plan at December 31, 2011 and 2010, and the changes in net assets available for benefits for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

/s/ RubinBrown LLP  
St. Louis, Missouri  
June 27, 2012

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**ARCH COAL, INC. EMPLOYEE THRIFT PLAN  
STATEMENT OF NET ASSETS AVAILABLE FOR BENEFITS**

	December 31,	
	2011	2010
<b>Assets</b>		
<b>Investments, At Fair Value</b>		
Cash	\$ 122,954,529	\$ —
Money market fund	2,876,866	3,205,840
Mutual funds	141,841,419	198,874,936
Stable value fund	81,339,807	78,214,788
Company stock	27,824,221	48,289,018
Collective trust funds	109,830,970	48,218,249
Brokerage securities	10,837,571	12,153,958
<b>Total Investments At Fair Value</b>	<b>497,505,383</b>	<b>388,956,789</b>
<b>Receivables</b>		
Company contributions	—	658,368
Participant contributions	—	890,430
Notes receivable from participants	21,911,424	19,865,218
<b>Total Receivables</b>	<b>21,911,424</b>	<b>21,414,016</b>
<b>Net Assets Available For Benefits At Fair Value</b>	<b>519,416,807</b>	<b>410,370,805</b>
<b>Adjustment From Fair Value To Contract Value For Fully Benefit-Responsive Investment Contracts</b>	<b>(3,717,995)</b>	<b>(2,841,340)</b>
<b>Net Assets Available For Benefits</b>	<b>\$ 515,698,812</b>	<b>\$ 407,529,465</b>

See the accompanying notes to financial statements.

**ARCH COAL, INC. EMPLOYEE THRIFT PLAN  
STATEMENT OF CHANGES IN NET ASSETS  
AVAILABLE FOR BENEFITS**

	For The Years Ended December 31,	
	2011	2010
<b>Additions To Net Assets Attributed To:</b>		
<b>Contributions</b>		
Participant salary deferral	\$ 25,739,721	\$ 23,391,009
Company	20,470,322	18,233,022
Participant after-tax	1,455,507	1,347,890
Rollover	1,115,450	786,352
<b>Total Contributions</b>	<b>48,781,000</b>	<b>43,758,273</b>
<b>Deductions From Net Assets Attributed To:</b>		
Benefits paid directly to participants	32,079,198	24,453,314
Administrative fees	521,037	414,395
<b>Total Deductions</b>	<b>32,600,235</b>	<b>24,867,709</b>
<b>Investment Income (Loss):</b>		
Dividends and interest	7,817,887	8,965,614
Net appreciation (depreciation) in fair value of investments	(39,592,854)	43,107,886
<b>Net Investment Income (Loss)</b>	<b>(31,774,967)</b>	<b>52,073,500</b>
<b>Interest Income On Notes Receivable From Participants</b>	<b>809,020</b>	<b>817,693</b>
<b>Transfer Of Assets Into Plan</b>	<b>122,954,529</b>	<b>—</b>
<b>Net Increase</b>	<b>108,169,347</b>	<b>71,781,757</b>
<b>Net Assets Available For Benefits - Beginning Of Year</b>	<b>407,529,465</b>	<b>335,747,708</b>
<b>Net Assets Available For Benefits - End Of Year</b>	<b>\$ 515,698,812</b>	<b>\$ 407,529,465</b>

See the accompanying notes to financial statements.

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**ARCH COAL, INC. EMPLOYEE THRIFT PLAN  
NOTES TO FINANCIAL STATEMENTS  
December 31, 2011 And 2010**

**1. Description Of The Plan**

The Arch Coal, Inc. Employee Thrift Plan (the Plan) was established by Arch Coal, Inc. (the Company) for the benefit of the eligible employees of the Company, its subsidiaries and controlled affiliates.

The following description of the Plan provides only general information. Participants should refer to the Plan Document for a more complete description of the Plan's provisions.

Certain provisions of the Plan, as described below, do not apply to or have been modified for certain subsidiaries and affiliates of the Company.

**General**

The Plan is a defined contribution plan that covers substantially all salaried employees, nonunion hourly employees, and certain union employees where specified by applicable collective bargaining agreements of the Company, its subsidiaries, and any controlled affiliates that elect to participate in the Plan. It is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA).

During 2011, the Company completed the acquisition of International Coal Group Inc. (ICG). On December 31, 2011, the assets of the International Coal Group, Inc. 401(k) Savings and Retirement Plan totaling \$122,954,529 were transferred into the Plan. Employees of ICG became participants of the Plan at that time.

**Contributions**

Participants may elect to defer between 1% and 50% of compensation. Highly compensated employees may contribute up to 16% of compensation. The Company is required to make matching contributions equal to 100% of participant salary deferral contributions up to the first 6% of eligible compensation.

The Plan includes an automatic enrollment provision for all eligible employees. The automatic enrollment provides for default salary deferral contributions of 6% of eligible compensation, which will be invested in a target retirement fund. The participant has the option to make changes to the salary deferral percentage and investment allocation at any time.

[Table of Contents](#)**ARCH COAL, INC. EMPLOYEE THRIFT PLAN**Notes To Financial Statements (*Continued*)**Participant Accounts**

Each participant's account is credited with the participant's salary deferral contributions; the Company's matching contribution, and Company discretionary contributions, if applicable, and an allocation of Plan earnings. The allocation of earnings is determined by the earnings of the participant's investment selection based on each participant's account balance, as defined in the Plan Document. In addition, each participant's account is charged for applicable Plan expenses. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

**Vesting**

Participants are fully vested in their salary deferral contributions plus actual earnings. All eligible employees of the Company at December 31, 1997 became fully vested in the Plan. Eligible employees hired subsequent to December 31, 1997 vest in Company contributions and earnings upon the completion of three full years of service. The hourly employees at Mingo Logan and Mountain Laurel are fully vested after the completion of two full years of service.

All participants become fully vested upon death while employed, total disability, or normal retirement age, regardless of the number of months of participation.

**Notes Receivable From Participants**

Active participants, with some exceptions, may borrow from their account a minimum of \$500 or up to a maximum equal to the lesser of \$50,000 or 50% of their vested account balances. Note terms range from one to five years or longer for the purchase of a primary residence. The notes are secured by the balance in the participant's account and bear interest at the prime rate listed in the Wall Street Journal on the first day of the month the loan is processed. Principal and interest are paid ratably through weekly and bi-weekly payroll deductions. At December 31, 2011, interest rates on the notes receivable range from 3.25% to 9.25%. The final installments are due at various dates through December 2026.

**Payment Of Benefits**

Upon death, termination of service, or attainment of age 70-1/2, a participant may receive a lump-sum amount equal to the value of the participant's vested interest in his or her account. Participant accounts with vested balances of \$1,000 or less will be automatically distributed unless otherwise instructed.

[Table of Contents](#)**ARCH COAL, INC. EMPLOYEE THRIFT PLAN**Notes To Financial Statements (*Continued*)**In-Service Withdrawals**

Subject to certain qualifications, upon reaching age 59-1/2 or upon experiencing a qualifying financial hardship, a participant may withdraw all or part of his or her vested account. Hardship withdrawals will be approved only if they conform to the Plan provisions and established Internal Revenue Service (IRS) safe harbors. Participants may also withdraw all or part of his or her vested portion of Company contributions if he or she has participated in the Plan for at least three consecutive years. Participants may withdraw after-tax participant contributions after he or she has participated in the Plan for 12 months.

**Forfeited Accounts**

Forfeited amounts of Company contributions are used to offset future Company contributions to the Plan. At December 31, 2011 and 2010, forfeited amounts that were available to reduce future Company contributions were \$300,227 and \$263,287, respectively. During the Plan years ended December 31, 2011 and 2010, \$584,897 and \$929,414, respectively, in forfeited funds were used to offset Company contributions.

**Investment Options**

Upon enrollment in the Plan, a participant may direct contributions in a number of investment options offered by the Plan.

**Administrative Expense**

All expenses related to the administration of the Plan are paid from Plan assets.

**2. Summary Of Significant Accounting Policies****Basis Of Accounting**

The financial statements of the Plan are prepared under the accrual basis of accounting.

## Estimates And Assumptions

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

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## ARCH COAL, INC. EMPLOYEE THRIFT PLAN

Notes To Financial Statements (Continued)

### Investment Valuation And Income Recognition

The Plan's investments are reported at fair value. Fair value is the price that would be received in an asset sale or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See Note 3 for a discussion of fair value measurements.

Investment income is recorded as earned on the accrual basis. Purchases and sales of securities are recorded on a trade-date basis. Dividends are recorded on the ex-dividend date.

As required by accounting standards, investment contracts held by a defined-contribution plan are required to be reported at fair value. However, contract value is the relevant measurement attribute for that portion of the net assets available for benefits of a defined-contribution plan attributable to fully benefit-responsive investment contracts because contract value is the amount participants would receive if they were to initiate permitted transactions under the terms of the Plan. The Plan invests in fully-benefit responsive investment contracts through its investment in the Invesco Stable Value Fund. The Statement of Net Assets Available for Benefits presents the fair value of the investment contracts, as well as the adjustment of the fully benefit-responsive investment contracts from fair value to contract value. The Statement of Changes in Net Assets Available for Benefits is prepared on a contract value basis.

### Notes Receivable From Participants

Notes receivable from participants are measured at their unpaid principal balance plus any accrued but unpaid interest. Delinquent participant notes are reclassified as distributions based upon the terms of the Plan Document.

### Payment Of Benefits

Benefits are recorded when paid.

## 3. Investments

The Company has established a Retirement Committee to oversee the activities of the Plan and has appointed the Vice President - Human Resources as the Plan Administrator. Mercer Fiduciary Trust Company is the Trustee for the Plan and Mercer HR Services is the Plan's Recordkeeper.

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## ARCH COAL, INC. EMPLOYEE THRIFT PLAN

Notes To Financial Statements (Continued)

Investments consist of the following at:

	December 31,	
	2011	2010
<b>Cash And Cash Equivalents</b>		
Cash	\$ 122,954,529*	\$ —
Money Market Funds	2,876,866	3,205,840
<b>Total Cash And Cash Equivalents</b>	<b>125,831,395</b>	<b>3,205,840</b>
<b>Mutual Funds</b>		
American Century Income and Growth Fund	16,090,329	16,307,331
Growth Fund of America	20,026,826	21,087,195*
Investment Company of America	8,487,637	8,618,054
Black Rock Small Cap Core Equity Fund	—	3,015,997
Royce Special Equity Fund	2,966,172	—
Dodge & Cox Balanced Fund	45,847,093*	42,114,799*
Franklin Templeton Balance Sheet Fund	9,840,584	12,079,133
Artio International Equity Fund	7,886,081	11,488,144
PIMCO Total Return Fund	24,630,768	27,938,788*
Jennison Mid Cap Growth Fund	6,065,929	5,806,920
Wells Fargo Advantage Outlook 2010	—	3,669,815

Wells Fargo Advantage Outlook 2020	—	11,047,536
Wells Fargo Advantage Outlook 2030	—	12,107,813
Wells Fargo Advantage Outlook 2040	—	23,593,411*
<b>Total Mutual Funds</b>	<b>141,841,419</b>	<b>198,874,936</b>
<b>Stable Value Fund</b>		
<b>(At Contract Value)</b>	<b>77,621,812*</b>	<b>75,373,448*</b>
<b>Company Stock</b>		
	<b>27,824,221*</b>	<b>48,289,018*</b>
<b>Collective Trust Funds</b>		
Wells Fargo Dow Jones Target Today	85,695	—
Wells Fargo Dow Jones Target 2010	1,569,863	—
Wells Fargo Dow Jones Target 2015	2,953,553	—
Wells Fargo Dow Jones Target 2020	6,712,675	—
Wells Fargo Dow Jones Target 2025	6,256,559	—
Wells Fargo Dow Jones Target 2030	5,589,129	—
Wells Fargo Dow Jones Target 2035	7,557,634	—
Wells Fargo Dow Jones Target 2040	8,332,836	—
Wells Fargo Dow Jones Target 2045	10,067,020	—
Wells Fargo Dow Jones Target 2050	9,020,724	—
Northern Trust Collective S&P 500 Equity Index Fund	51,685,282*	48,218,249*
<b>Total Collective Trust Funds</b>	<b>109,830,970</b>	<b>48,218,249</b>
<b>Brokerage Securities</b>		
	<b>10,837,571</b>	<b>12,153,958</b>
	<b>\$ 493,787,388</b>	<b>\$ 386,115,449</b>

\*Investment represents 5% or more of net assets at the end of the respective Plan year.

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**ARCH COAL, INC. EMPLOYEE THRIFT PLAN**

Notes To Financial Statements (Continued)

During 2011 and 2010, the Plan's investments, including gains and losses on investments bought and sold, as well as held during the year, appreciated (depreciated) in value as follows:

	2011	2010
Mutual funds	\$ (9,683,540)	\$ 16,677,069
Company stock	(29,830,923)	19,190,959
Collective trust funds	1,038,753	6,200,210
Brokerage securities	(1,117,144)	1,039,648
	<u>\$ (39,592,854)</u>	<u>\$ 43,107,886</u>

**Stable Value Fund**

The Plan invests in the Invesco Stable Value Fund (the Fund), a benefit-responsive investment managed exclusively for the Plan by Invesco Institutional, N.A. (Invesco). Invesco maintains the contributions in a managed account, which is credited with earnings on the underlying investments and charged for participant withdrawals and administrative expenses. The Fund's key objectives are to provide preservation of principal, maintain a stable interest rate, and provide daily liquidity at contract value for participant withdrawals and transfers in accordance with the provisions of the Plan.

The Fund invests in synthetic guaranteed interest contracts (GICs), which are wrap contracts paired with an underlying investment or investments, usually a portfolio, owned by the Plan, of common collective trust funds. The Plan purchases wrapper contracts from financial services institutions. Synthetic GICs credit a stated interest rate for a specified period of time. Investment gains and losses are amortized over the expected duration through the calculation of the interest rate applicable to the Plan on a prospective basis. Synthetic GICs provide for a variable crediting rate, which typically resets monthly and quarterly, and the issuer of the wrap contract provides assurance that future adjustments to the crediting rate cannot result in a crediting rate less than zero. The crediting rate is primarily based on the current yield-to-maturity of the covered investments, plus or minus amortization of the difference between the market value and contract value of the covered investments over the duration of the covered investments at the time of the computation. The crediting rate is most affected by the change in the annual effective yield-to-maturity of the underlying securities, but is also affected by the difference between the contract value and the market value of the covered investments. Depending on the change in duration from reset period to reset period, the magnitude of the impact to the crediting rate of the contract to market difference is heightened or lessened.

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As described in Note 2, because the Fund is fully benefit-responsive, contract value is the relevant measurement attribute for that portion of the net assets available for benefits attributable to the Fund. Participants may ordinarily direct the withdrawal or transfer of all or a portion of their investment at contract value.

Certain events limit the ability of the Plan to transact at contract value with the issuer. Such events include the following: (1) material, adverse amendments to the Plan documents (including complete or partial Plan termination or merger with another plan), or (2) the decision by the Company to withdraw all assets from the funds and reinvest in another investment vehicle. The Plan Administrator does not believe that the occurrence of any such value event, which would limit the Plan's ability to transact at contract value with participants, is probable.

The investment contracts included in the Fund had an average yield of 1.46% and 2.13% for the years ended December 31, 2011 and 2010, respectively. The average crediting interest rate was 2.77% and 3.48% at December 31, 2011 and 2010, respectively.

### **Collective Trust Funds**

#### **Equity Index Fund**

The Plan invests in collective trust funds in which the primary objective is to approximate the risk and return of the S&P 500 Index. This index is commonly used to represent the large cap segment of the U.S. equity market. The collective trust funds do not have any unfunded commitments relating to their investments or any significant restrictions on redemptions. Participant-directed redemptions can be made on any business day and do not have a redemption notice period.

#### **Target Date Funds**

The Plan invests in collective trust funds in which the primary objective is to approximate the risk and return of the Dow Jones Target Index Funds. The funds invests in a combination of equity, fixed income and money market securities using an asset allocation strategy. The collective trust funds do not have any unfunded commitments relating to their investments or any significant restrictions on redemptions. Participant-directed redemptions can be made on any business day and do not have a redemption notice period.

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### **Fair Value Measurements**

The Plan follows current accounting standards, which establish a framework for measuring fair value. The framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value are described below:

- |         |   |
|---------|---|
| Level 1 | Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Plan has the ability to access.   |
| Level 2 | Inputs to the valuation methodology include: <ul style="list-style-type: none"><li>· Quoted prices for similar assets or liabilities in active markets;</li><li>· Quoted prices for identical or similar assets or liabilities in inactive markets;</li><li>· Inputs other than quoted prices that are observable for the asset or liability;</li><li>· Inputs that are derived principally from or corroborated by observable market data by correlation or other means.</li></ul> If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability. |
| Level 3 | Inputs to the valuation methodology are unobservable and significant to the fair value measurement.   |

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The asset's or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

Following is a description of the valuation methodologies used for assets measured at fair value:

#### Money Market Fund And Mutual Funds

Valued at the net asset value (NAV) of shares held by the Plan at year end, based on quoted market prices.

#### Stable Value Fund

Valued at NAV based on the market value of the underlying investment assets divided by the number of units outstanding at the end of the Plan year. The fund seeks to provide preservation of principal, maintain a stable interest rate and provide daily liquidity at contract value for participant withdrawals and transfers in accordance with the provisions of the Plan.

#### Collective Trust Funds

Valued at NAV as determined by the Trustee based on the market value of the underlying investment assets divided by the number of units outstanding at the end of the Plan year.

#### Company Stock And Brokerage Securities

Valued at the closing price reported on the active market on which the individual securities are traded.

The methods described above may produce fair value calculations that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

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## ARCH COAL, INC. EMPLOYEE THRIFT PLAN

### Notes To Financial Statements (Continued)

The following tables set forth by level, within the fair value hierarchy, the Plan's investments at fair value as of:

	December 31, 2011			
	Level 1	Level 2	Level 3	Total
Money market fund	\$ 2,876,866	\$ —	\$ —	\$ 2,876,866
Mutual funds				
Growth funds	29,058,927	—	—	29,058,927
Balanced funds	45,847,093	—	—	45,847,093
Blended funds	16,373,718	—	—	16,373,718
Value funds	25,930,913	—	—	25,930,913
Income fund	24,630,768	—	—	24,630,768
Total mutual funds	141,841,419	—	—	141,841,419
Collective trust funds				
Target date funds	—	58,145,688	—	58,145,688
Equity index fund	—	51,685,282	—	51,685,282
Total collective trust funds	—	109,830,970	—	109,830,970
Stable value fund	—	81,339,807	—	81,339,807
Company stock	27,824,221	—	—	27,824,221
Brokerage securities	10,837,571	—	—	10,837,571
<b>Total investments at fair value</b>	<b>\$ 183,380,077</b>	<b>\$ 191,170,777</b>	<b>\$ —</b>	<b>\$ 374,550,854</b>
	December 31, 2010			
	Level 1	Level 2	Level 3	Total
Money market fund	\$ 3,205,840	\$ —	\$ —	\$ 3,205,840
Mutual funds				
Growth funds	29,910,115	—	—	29,910,115
Balanced funds	92,533,374	—	—	92,533,374
Blended funds	20,106,198	—	—	20,106,198
Value funds	28,386,464	—	—	28,386,464
Income fund	27,938,785	—	—	27,938,785
Total mutual funds	198,874,936	—	—	198,874,936
Stable value fund	—	78,214,788	—	78,214,788
Company stock	48,289,018	—	—	48,289,018
Collective trust fund	—	48,218,249	—	48,218,249
Brokerage securities	12,153,958	—	—	12,153,958



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**ARCH COAL, INC. EMPLOYEE THRIFT PLAN**

## Notes To Financial Statements (Continued)

There have been no changes in the methodologies used at December 31, 2011 or 2010.

**4. Plan Termination**

Although it has not expressed intent to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan, subject to the provisions of ERISA. In the event of Plan termination, participants will become 100% vested in their accounts.

**5. Income Tax Status**

The Plan obtained its latest determination letter on July 17, 2009 in which the IRS stated that the Plan, as then designed, was in compliance with the applicable requirements of the Internal Revenue Code. The Plan has been amended since receiving the determination letter. The Plan Administrator believes the amendments made will maintain the tax qualification of the Plan and the related trust will continue to be tax exempt.

Accounting principles generally accepted in the United States of America require Plan management to evaluate tax positions taken by the Plan and recognize a tax liability (or asset) if the Plan has taken an uncertain position that more likely than not would not be sustained upon examination by the IRS. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress. The Plan's federal tax returns for tax years 2008 and later remain subject to examination by taxing authorities.

**6. Risks And Uncertainties**

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the Statement of Net Assets Available For Benefits.

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**ARCH COAL, INC. EMPLOYEE THRIFT PLAN**

## Notes To Financial Statements (Continued)

**7. Related Party Transactions**

The Plan's investments include shares of Company common stock. The Company is the Plan Sponsor, and therefore, these transactions qualify as allowable party-in-interest transactions.

**8. Reconciliation Of Financial Statements To Form 5500**

Following is a reconciliation of net assets available for benefits and net increase per the financial statements to the Form 5500:

	December 31,	
	2011	2010
Net assets available for benefits per the financial statements	\$ 515,698,812	\$ 407,529,465
Adjustment from contract value to fair value for fully benefit-responsive contracts	3,717,995	2,841,340
<b>Net Assets Available For Benefits Per The Form 5500</b>	<b>\$ 519,416,807</b>	<b>\$ 410,370,805</b>
	For The Year Ended December 31, 2011	
Net increase per the financial statements	\$ 108,169,347	
Adjustment from contract value to fair value for fully benefit-responsive contracts prior year	(2,841,340)	
Adjustment from contract value to fair value for fully benefit-responsive contracts current year	3,717,995	
<b>Net Increase Per The Form 5500</b>	<b>\$ 109,046,002</b>	

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Our audits were performed for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule of assets held at end of year is presented for purposes of additional analysis and is not a required part of the basic financial statements, but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. This supplemental schedule is the responsibility of the Plan's management. The supplemental schedule has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ RubinBrown LLP  
 June 27, 2012  
 St. Louis, Missouri

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**ARCH COAL, INC. EMPLOYEE THRIFT PLAN**  
**E.I.N.: 43-0921172 PLAN NO.: 006**  
**SCHEDULE OF ASSETS HELD AT END OF YEAR**  
**Page 1 Of 2**  
**December 31, 2011**

Identity Of Issuer	Description Of Investment	Current Value
<b>Cash</b>	Cash	\$ 122,954,529
<b>Money Market Fund</b>		
Federated	Prime Obligation Money Market Fund	2,876,866
<b>Mutual Funds</b>		
American Century	American Century Income and Growth Fund	16,090,329
American Fund Corporation	Growth Fund of America	20,026,826
American Fund Corporation	Investment Company of America	8,487,637
Royce	Royce Special Equity Fund	2,966,172
Dodge & Cox Funds	Dodge & Cox Balanced Fund	45,847,093
Franklin Investments	Franklin Templeton Balance Sheet Fund	9,840,584
Artio Investments	Artio International Equity Fund	7,886,081
PIMCO Investments	PIMCO Total Return Fund	24,630,768
Jennison Investments	Jennison Mid Cap Growth Fund	6,065,929
<b>Total Mutual Funds</b>		<b>141,841,419</b>
<b>Company Stock</b>		
Arch Coal, Inc.*	Common stock	27,824,221
<b>Collective Trust Funds</b>		
Wells Fargo	Wells Fargo Dow Jones Target Today	85,695
Wells Fargo	Wells Fargo Dow Jones Target 2010	1,569,863
Wells Fargo	Wells Fargo Dow Jones Target 2015	2,953,553
Wells Fargo	Wells Fargo Dow Jones Target 2020	6,712,675
Wells Fargo	Wells Fargo Dow Jones Target 2025	6,256,559
Wells Fargo	Wells Fargo Dow Jones Target 2030	5,589,129
Wells Fargo	Wells Fargo Dow Jones Target 2035	7,557,634
Wells Fargo	Wells Fargo Dow Jones Target 2040	8,332,836
Wells Fargo	Wells Fargo Dow Jones Target 2045	10,067,020
Wells Fargo	Wells Fargo Dow Jones Target 2050	9,020,724
Northern Trust	Collective Daily S&P 500 Equity Index Fund	51,685,282
<b>Total Collective Trust Funds</b>		<b>109,830,970</b>
<b>Brokerage Securities</b>		
Mercer Securities	Mercer Securities Account (Participant Directed Brokerage Accounts)	10,837,571
<b>Balance Carried Forward</b>		<b>293,211,047</b>

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E.I.N.: 43-0921172 PLAN NO.: 006  
**SCHEDULE OF ASSETS HELD AT END OF YEAR**  
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December 31, 2011

Identity Of Issuer	Description Of Investment	Current Value
<b>Balance Brought Forward</b>		<b>\$ 293,211,047</b>
<b>Stable Value Fund</b>		
Bank of America	IGT Invesco Short-Term Bond Fund	14,055,083
Bank of America	IGT BlackRock Core Fixed Income Fund	395,480
Bank of America	IGT Invesco Core Fixed Income Fund	393,904
Bank of America	IGT Goldman Sachs Core	393,782
Bank of America	IGT PIMCO Core Fixed Income Fund	394,457
Bank of America	Wrapper Contract	18,977
ING Life & Annuity	IGT Invesco Short-Term Bond Fund	19,217,745
JP Morgan Chase Bank	IGT Invesco Multi-Manager Intermediate Government/Credit Fund	13,213,195
JP Morgan Chase Bank Wrapper	Wrapper Contract	88,862
Monumental Life Insurance Co.	IGT Invesco Short-Term Bond Fund	10,341,378
Monumental Life Insurance Co.	IGT Invesco Core Fixed Income Fund	1,738,899
Monumental Life Insurance Co.	IGT BlackRock Core Fixed Income Fund	1,745,841
Monumental Life Insurance Co.	IGT Goldman Sachs Core	1,738,346
Monumental Life Insurance Co.	IGT PIMCO Core Fixed Income Fund	1,741,312
Monumental Life Insurance Co.	Wrapper Contract	15,797
Prudential Insurance Company	IGT Jennison Intermediate Government/Credit Fund	3,349,104
State Street Bank & Trust Co.	IGT BlackRock Intermediate Government/ Credit Fund	3,302,459
State Street Bank & Trust Co.	IGT Invesco Intermediate Government/Credit Fund	3,286,650
State Street Bank & Trust Co.	IGT PIMCO Intermediate Government/ Credit Fund	3,271,397
State Street Bank & Trust Co.	Money Market Fund	2,637,139
<b>Total Stable Value Fund</b>		<b>81,339,807</b>
<b>Plan Participants*</b>	Notes receivable, bearing interest at 3.25% - 9.25%, due at various dates through December 2026	21,911,424
<b>Total</b>		<b>\$ 519,416,807</b>

\* Represents party-in-interest

The above information is a required disclosure for IRS Form 5500, Schedule H, Part IV, line 4i.

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### Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this annual report to be signed on their behalf by the undersigned thereunto duly authorized.

Arch Coal, Inc. Employee Thrift Plan

By: /s/ John Ziegler, Jr.  
John Ziegler, Jr.  
Plan Administrator

June 27, 2012

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### Exhibit Index

Exhibit	Description
23.1	Consent of Independent Registered Public Accounting Firm

**Consent Of Independent  
Registered Public Accounting Firm**

We consent to the incorporation by reference in Registration Statement on Form S-8 (No. 333-32777) of Arch Coal, Inc. of our report dated June 27, 2012 with respect to the financial statements and supplemental schedule of the Arch Coal, Inc. Employee Thrift Plan included in this Annual Report on Form 11-K for the year ended December 31, 2011.

/s/ RubinBrown LLP  
St. Louis, Missouri  
June 27, 2012

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