

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

FORM 8-K

**CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934**

Date of report (Date of earliest event reported): September 18, 2008 (September 18, 2008)

Arch Coal, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation)

1-13105
(Commission File Number)

43-0921172
(I.R.S. Employer Identification No.)

CityPlace One
One CityPlace Drive, Suite 300
St. Louis, Missouri 63141
(Address, including zip code, of principal executive offices)

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

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 7.01 Regulation FD Disclosure.

On September 18, 2008, several senior executive officers of Arch Coal, Inc. (the “Company”) will be delivering presentations at the Company’s Analyst Day that will include written communications comprised of slides. The slides from the presentations are attached hereto as Exhibit 99.1 and are hereby incorporated by reference.

A copy of the slides will be available at <http://investor.archcoal.com/events.cfm> for 30 days.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

The following exhibits are attached hereto and furnished herewith.

Exhibit No.	Description
99.1	Slides from the presentations at the Arch Coal, Inc. Analyst Day.

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: September 18, 2008

Arch Coal, Inc.

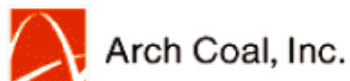
By: /s/ Robert G. Jones

Robert G. Jones

Vice President-Law, General Counsel & Secretary

Exhibit Index

Exhibit No.	Description
99.1	Slides from the presentations at the Arch Coal, Inc. Analyst Day.



Arch Coal Analyst Mine Tour

John Drexler
Senior Vice President and Chief Financial Officer

Black Thunder Mine
September 18, 2008

Forward-Looking Information

This presentation contains “forward-looking statements” – that is, statements related to future, not past, events. In this context, forward-looking statements often address our expected future business and financial performance, and often contain words such as “expects,” “anticipates,” “intends,” “plans,” “believes,” “seeks,” or “will.” Forward-looking statements by their nature address matters that are, to different degrees, uncertain. For us, particular uncertainties arise from changes in the demand for our coal by the domestic electric generation industry; from legislation and regulations relating to the Clean Air Act and other environmental initiatives; from operational, geological, permit, labor and weather-related factors; from fluctuations in the amount of cash we generate from operations; from future integration of acquired businesses; and from numerous other matters of national, regional and global scale, including those of a political, economic, business, competitive or regulatory nature. These uncertainties 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. For a description of some of the risks and uncertainties that may affect our future results, you should see the risk factors described from time to time in the reports we file with the Securities and Exchange Commission.

This presentation includes certain non-GAAP financial measures, including Adjusted EBITDA. These non-GAAP financial measures are not measures of financial performance in accordance with generally accepted accounting principles and may exclude items that are significant in understanding and assessing our financial results. Therefore, these measures should not be considered in isolation or as an alternative to net income from operations, cash flows from operations, earnings per fully-diluted share or other measures of profitability, liquidity or performance under generally accepted accounting principles. You should be aware that our presentation of these measures may not be comparable to similarly-titled measures used by other companies. A reconciliation of these financial measures to the most comparable measures presented in accordance with generally accepted accounting principles has been included at the end of this presentation.



Arch's Financial Scorecard

Earnings Per Share

(fully diluted)



Adj. EBITDA*

(in \$ millions)



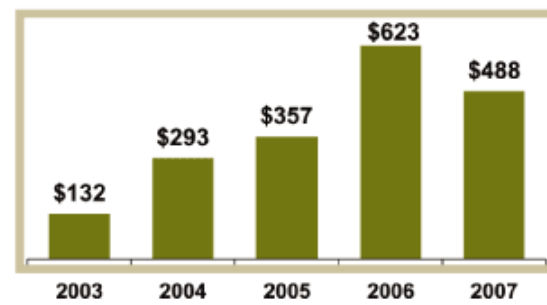
Cash Flow from Operations

(in \$ millions)



Capital Expenditures

(in \$ millions)



Arch successfully anticipated past coal market trends; assembled strategic national and diverse asset base

- Strategically **expanded operational focus** on growth markets
 - Acquired assets and reserves opportunistically
- **Identified key market trends** early and built a competitive market position
 - Low-sulfur strategy has proved advantageous; low-chlorine strategy is evolving
 - Poised to return to high-sulfur markets as scrubbing increases
- **Monetized non-core assets** at advantageous times
 - Portfolio approach to asset base
 - Redeployed capital from asset sales into more strategic investments
- Pursued key **organic growth** initiatives
 - Invested in projects that have provided a competitive advantage
- **Leveraged asset base** to participate in emerging trends/technologies
 - Focused on developing new markets for coal



Overview of Arch's key past and present value-creating activities

- **Powder River Basin**

- Arco assets (1998)
- Thundercloud LBA (1998)
- North Rochelle (2004)
- Little Thunder LBA (2004)
- Coal Creek reopened (2006)

- **Central Appalachia**

- Contributed reserves to form NRP and monetized assets (2002-2004)
- Sold select operations (2005)
- Sold Mingo Logan Ben Creek (2007)
- Mountain Laurel longwall (2007)

- **Western Bituminous Region**

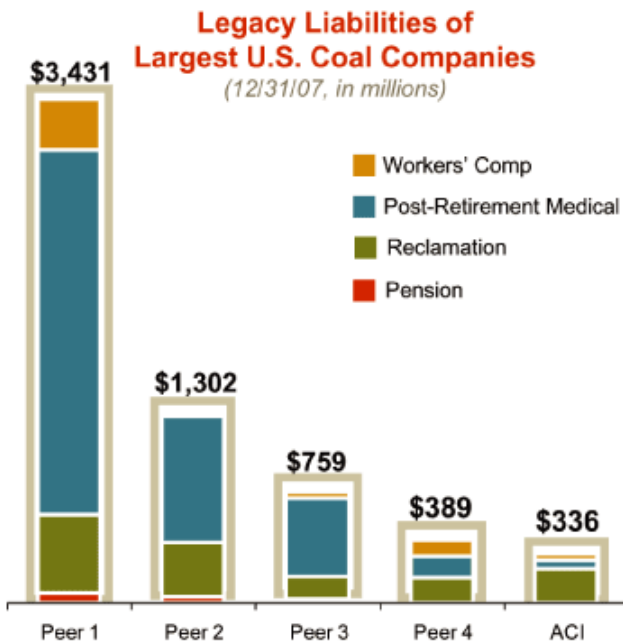
- Arco assets (1998)
- Increased ownership to 100% (2004)
- Skyline reopened (2006)
- DKRW CTL project (2006)

- **Illinois Basin**

- Acquired equity interest in Knight Hawk Holdings (2006)
- Acquired Denmark reserves (2007)



Arch maintains lowest legacy liabilities among peers

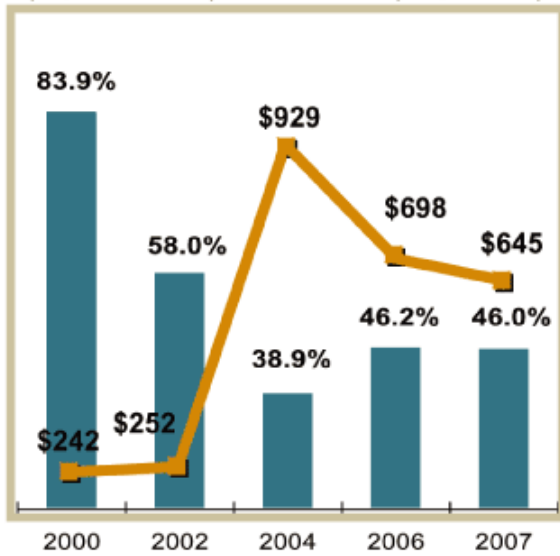


- Substantially **reduced legacy liability position** since 2005
 - More than one-half of Arch's remaining legacy liabilities represent ongoing reclamation expense
- Translates into significant **annual expense savings**
 - Arch estimates that annual costs required to service prior legacy liabilities were reduced by roughly \$65 million

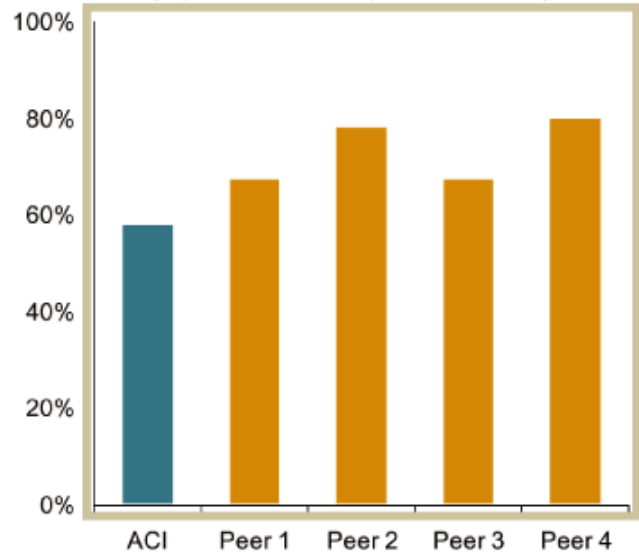


Arch has significantly improved its capital structure and liquidity position

Net Debt as Percentage of Capitalization and Available Liquidity
(in \$ millions and percent of total capital, at 12/31)



Total Obligations* as a Percentage of Capitalization
(in percent of total capital, at 12/31/07)



Arch has access to multiple sources of low-cost financing

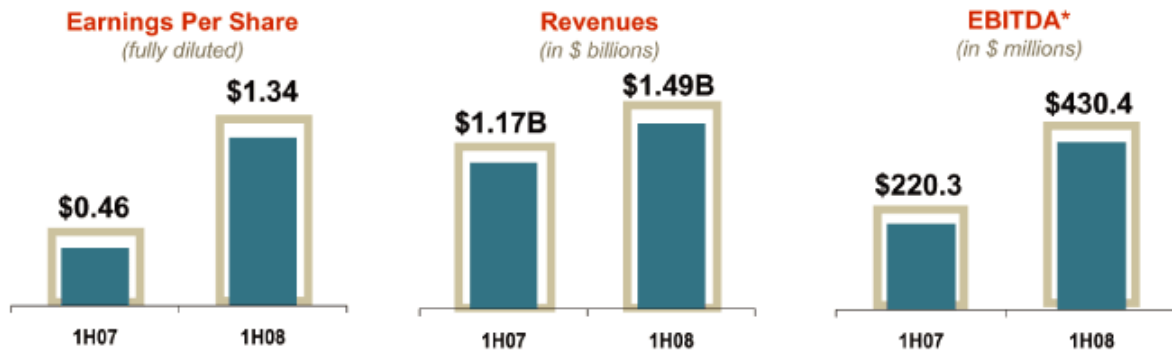
- **Revolving Credit Facility**
 - Restructured in 2006 to increase capacity to \$800 million
- **Accounts Receivable Securitization**
 - Established in 2006 and expanded in 2008
 - Capacity of \$175 million
 - Rates are typically better than our Revolver borrowing rate
- **Commercial Paper Program**
 - Established in 2007 and expanded in 2008
 - Capacity of \$100 million
 - Rates are comparable to other highly rated CP programs
 - Rates are typically better than our Revolver borrowing rate



Arch's adherence to a market-driven strategy laid the foundation for current success

- **Maintain strong balance sheet** to support leveraged sales position
 - Go prompt in weak market cycle to preserve future upside potential
 - Layering and patient sales approach as markets strengthen
 - Leveraged contracting strategies; use of trading to optimize asset base
- Re-align **production and capital spending levels** to match market
 - Match production targets to current market demand
 - Align capital spend with our market expectations
 - Unpriced position provides market exposure without need for expansion capital
- Diligently **manage controllable costs** and preserve **flexibility**
 - Focus on cost control; increase operational flexibility
 - Offset cost pressures with productivity and process improvement initiatives

Arch delivers strong first half 2008 results

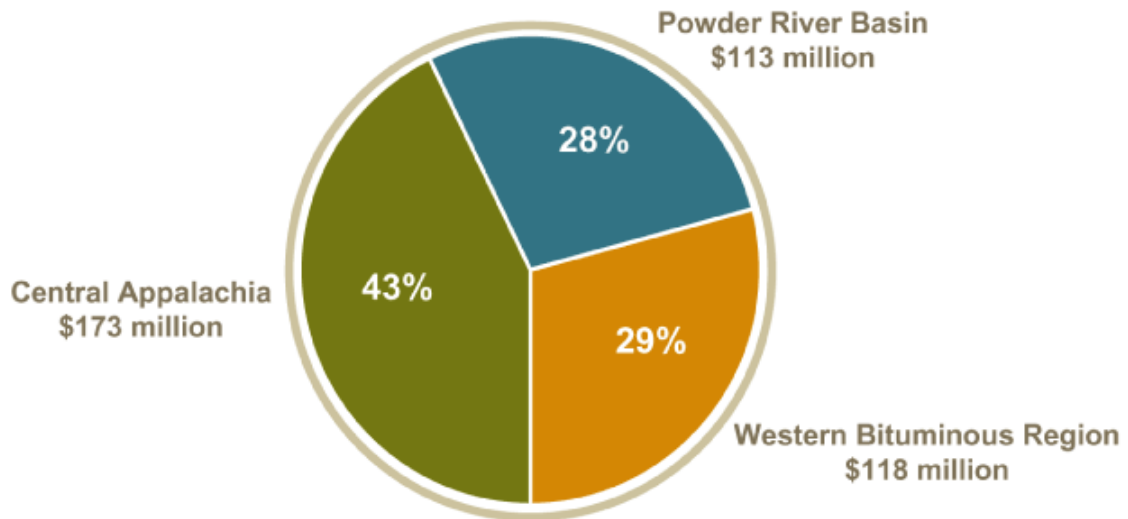


- **Meaningful expansion** in revenues, earnings per share and adjusted EBITDA over prior-year period
 - Earnings per share increased 191%
 - Consolidated revenues increased 27%
 - EBITDA increased 95%



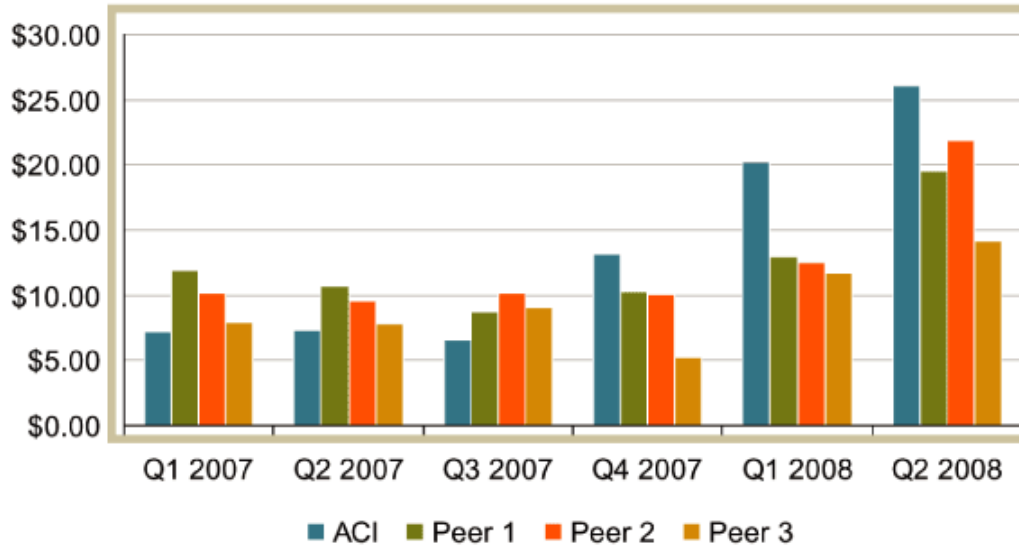
Arch's first half 2008 financial performance highlights contribution from all operating regions

1H08 Cash Contribution by Region



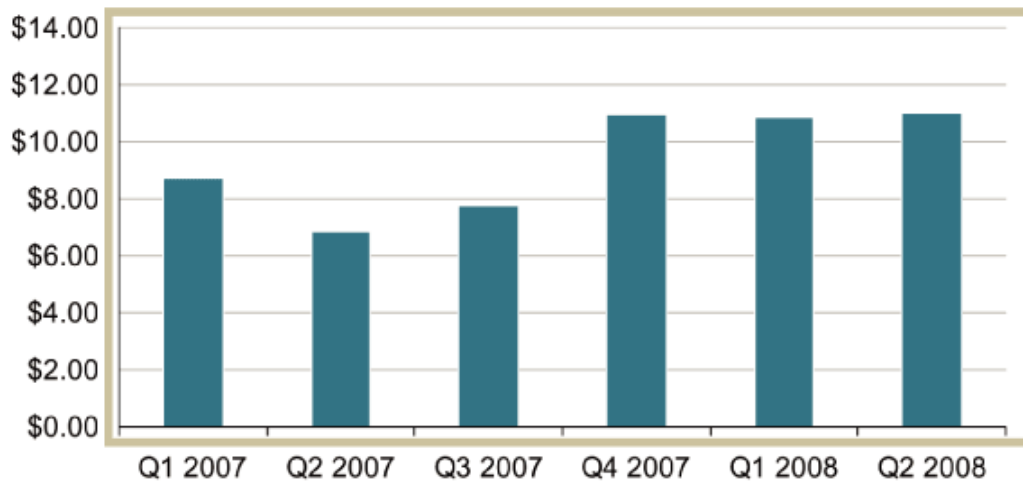
Arch's cash margin in Central Appalachia has outperformed since the Mountain Laurel start-up

Reported Cash Margin per Ton



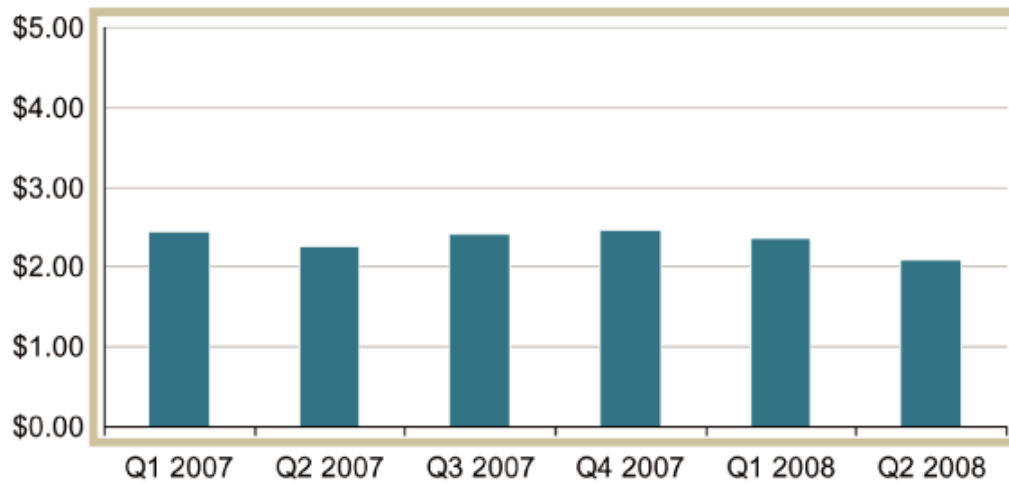
Arch's cash margin in the Western Bituminous Region is climbing

Arch's Reported Cash Margin per Ton



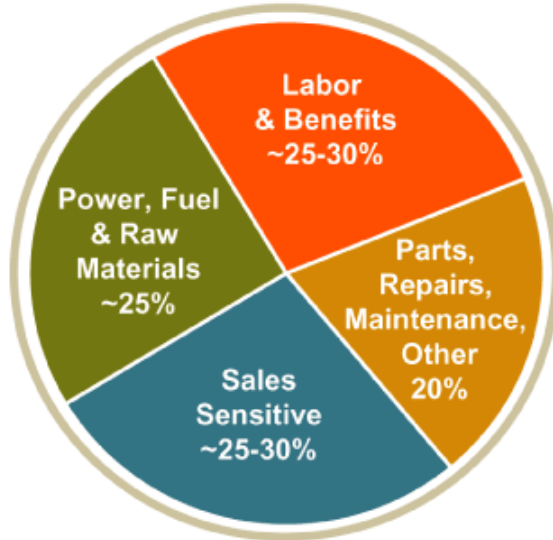
Arch's cash margin in the Powder River Basin has remained relatively stable

Arch's Reported Cash Margin per Ton



Arch is focused on major consumable categories in an effort to control costs

Consolidated First Half 2008 Cash Cost Component by Category



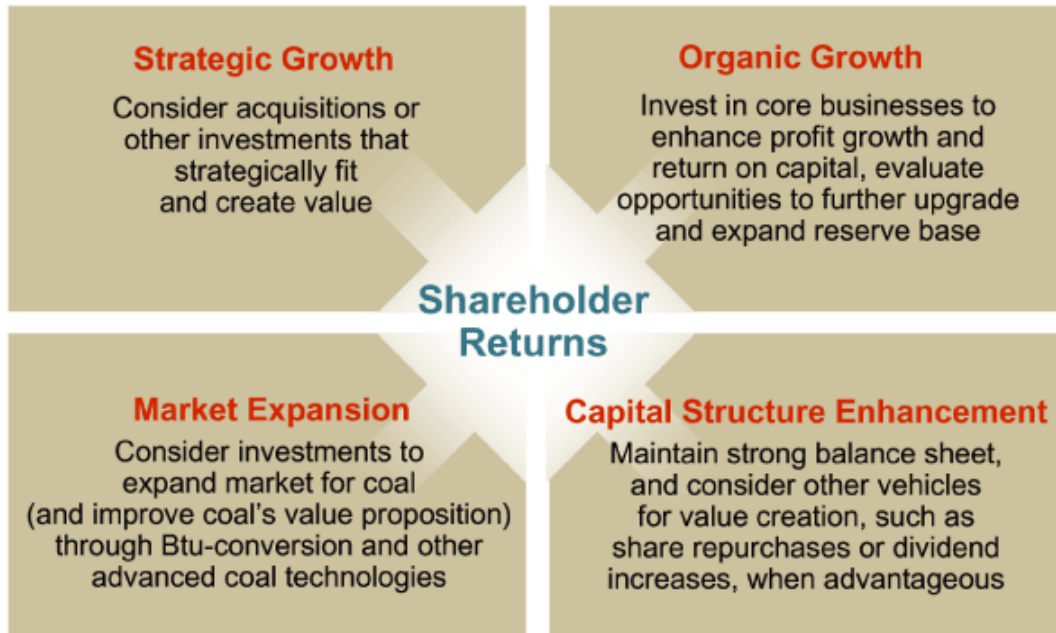
- Labor costs have been relatively stable, although some pressure in the East
- Power, Fuel & Raw Material costs have been growing, especially in the West
- Diesel hedging program has helped smooth and control escalating costs
 - 2H08: ~70% hedged @ \$2.86
 - 2009: ~50% hedged @ \$3.92

Arch's strategic brokering and trading platform enhances value for shareholders

- Established in 2006 and expanded in 2007 and 2008
- Executed in a careful and deliberate fashion
- Focused on managing and controlling risk
- Platform designed to enhance value through a variety of means

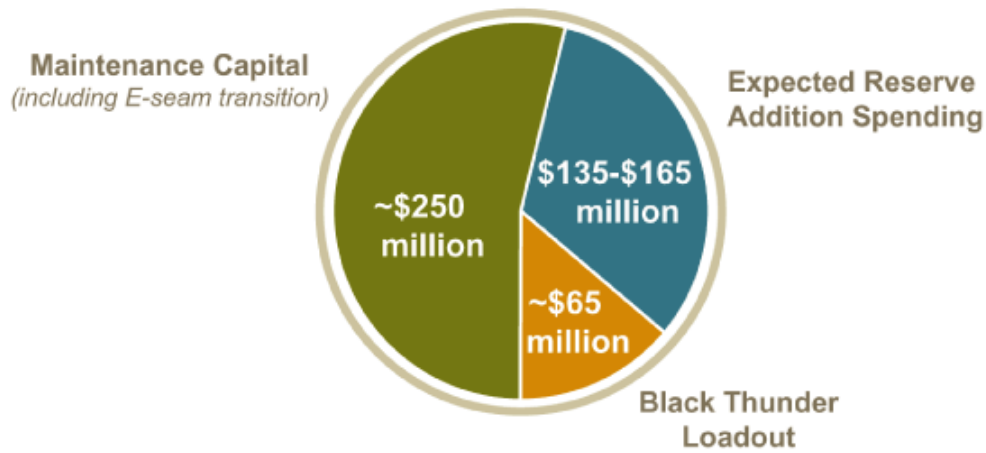


Arch is poised to generate – and rigorously prioritizes the use of – free cash flow



Arch has the financial flexibility to support multiple growth, maintenance and improvement initiatives

2008 Capital Spending and Reserve Additions



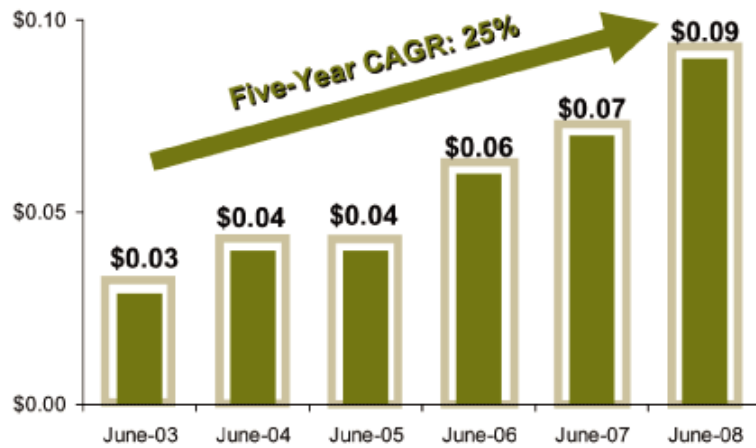
Capital spending guidance, excluding reserve additions, of \$310-\$340 million was given on July 25



Arch has raised the dividend four times in the past five years

ACI Quarterly Dividend

(common stock dividend on June payable date)



- Regular **increases** in quarterly dividend convey board's continued confidence in Arch's future earnings potential
- Dividend increase in June 2008 represents nearly a **29% increase** or \$0.02 per share

Arch's valuation is attractive



- Diversified operating base and a top producer in **three** major U.S. coal basins
 - Well-positioned to supply growing seaborne and domestic coal demand
- **Pricing is up meaningfully** across all of Arch's key producing basins
 - 1 year ago: Prompt year CAPP @ \$48, WBIT @ \$30, PRB @ \$11, while ACI @ \$33
 - Today: Prompt year CAPP @ \$116, WBIT @ \$73, PRB @ \$16, while ACI @ \$37
- Significant reserve position and equity participation in the **Illinois Basin**
- Expanded **trading platform** will help optimize coal margins while hedging risk
- **CTL opportunities** (such as DKRW project) can help achieve Btu-parity
 - Coal reserves trade at substantial discount to natural gas and crude oil reserves
 - ACI's reserve base could be transformed into 5 billion boe in refined products

EBITDA Reconciliation Chart

Included in the accompanying presentation, we have presented certain non-GAAP measures as defined by Regulation G. The following reconciles these items to net income as reported under GAAP.

<i>(in \$000s)</i>	Year Ended December 31,				
	2003	2004	2005	2006	2007
Net income	\$ 16,686	\$ 113,706	\$ 38,123	\$ 260,931	\$ 174,929
Cumulative effect of accounting change	3,654	-	-	-	-
Income tax (benefit) expense	(23,210)	(130)	(34,650)	7,650	(19,850)
Interest expense, net	47,497	56,504	63,120	60,639	72,265
Depreciation, depletion and amortization	158,464	166,322	212,301	208,354	242,062
DD&A - Equity interest in Canyon Fuel Company, LLC	21,425	10,359	-	-	-
Expenses from early debt extinguishment and other non-operating	(4,256)	7,966	11,264	7,447	2,273
Adjusted EBITDA	\$ 220,260	\$ 354,727	\$ 290,158	\$ 545,021	\$ 471,679

<i>(in \$000s)</i>	Six Months Ended	
	June 30,	
	2008	2007
Net income	\$ 194,144	\$ 66,276
Income tax expense	52,940	2,250
Interest expense, net	38,316	34,867
Depreciation, depletion and amortization	144,995	115,610
Non-operating expense	-	1,320
Adjusted EBITDA	\$ 430,395	\$ 220,323

Source: ACI



Arch Coal, Inc.



Arch Coal Analyst Mine Tour

John Drexler

Senior Vice President and Chief Financial Officer

Black Thunder Mine

September 18, 2008



Arch Coal, Inc.



Arch Coal Analyst Mine Tour

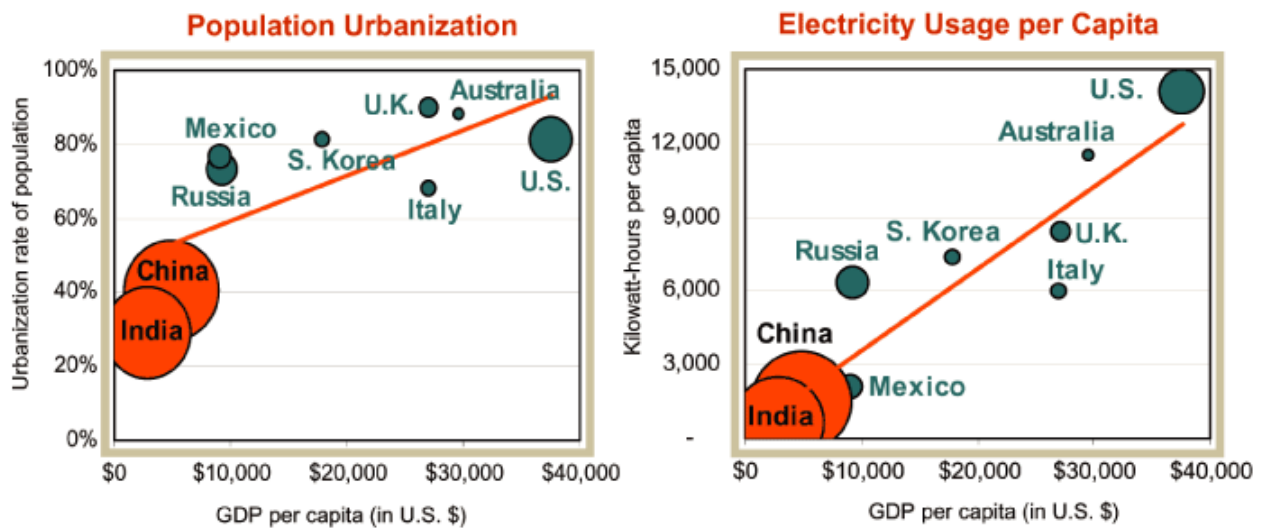
John Eaves
President and Chief Operating Officer

Black Thunder Mine
September 18, 2008

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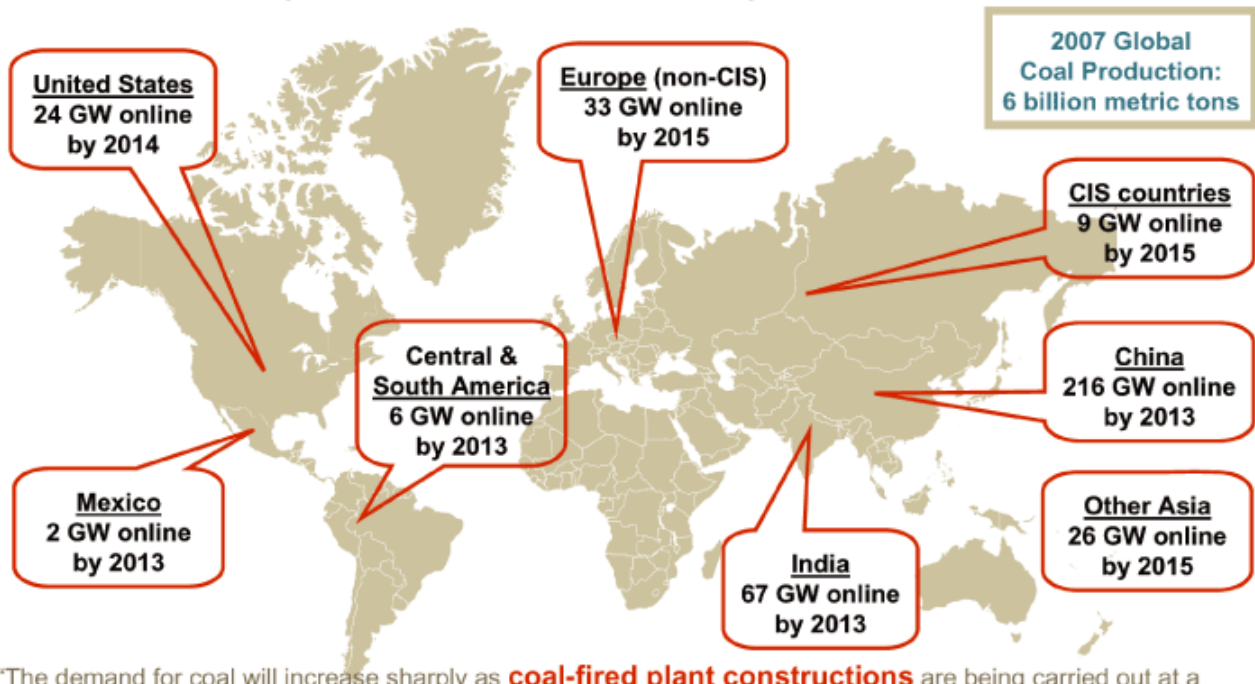
Asia's industrial revolution is testing global energy supply infrastructure



Note: bubble size reflects size of population



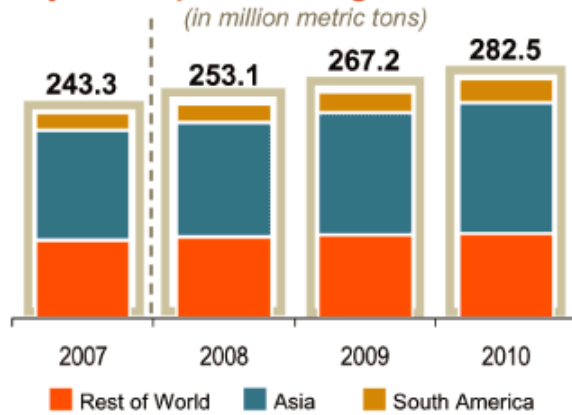
Around the globe, countries are embracing coal as a primary source for electricity



"The demand for coal will increase sharply as **coal-fired plant constructions** are being carried out at a break neck pace. By 2012, the world would need an estimated additional 1.1 billion short tons of new coal supply."

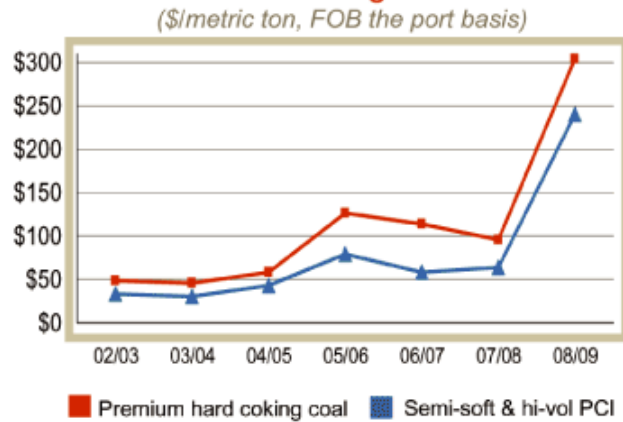
Growing worldwide steel production and blast furnace capacity additions are stoking met coal demand

Projected Import Metallurgical Coal Demand



- Global import **met coal** demand expected to grow by ~40 million tons over next 3 years
- More than 75 percent of the expected growth is being driven by increased consumption in **Asia** and **South America**

Benchmark Pricing for Met Coal



- **Met coal pricing** has risen sharply since 2003; expect continued market tightness
- Arch is **poised to capitalize** on strong met and PCI coal trends with its Mountain Laurel, Pardee and Lone Mountain mines

Supply constraints in traditional coal export nations are shifting global seaborne coal flows

Key Trends in Asia-Pacific Coal Markets

- **Australia:** severe port and rail bottlenecks may mask underlying labor and mine challenges; expanded capacity still may undershoot growing Asian demand
- **Indonesia:** increasing domestic demand; export capacity dependent on congested river system
- **China:** substantial growth in domestic demand will push country to a net importer status of coal as early as 2008
- **Vietnam:** growing domestic demand expected to reduce export supply
- **India:** imported coal needs projected to rise meaningfully; will pull available supply from Atlantic Basin markets
- **Russia:** production challenges; growing domestic coal consumption; exports increasingly shifting to Asia-Pacific market
- **South Africa:** domestic power shortage; reserve degradation; exports increasingly shifting to Asia-Pacific market



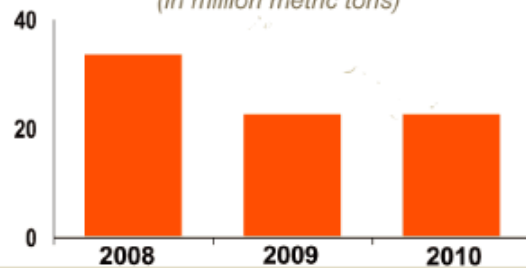
Asian demand pull is creating opportunities for the United States in seaborne coal export markets

Key Trends in Atlantic Basin Coal Markets

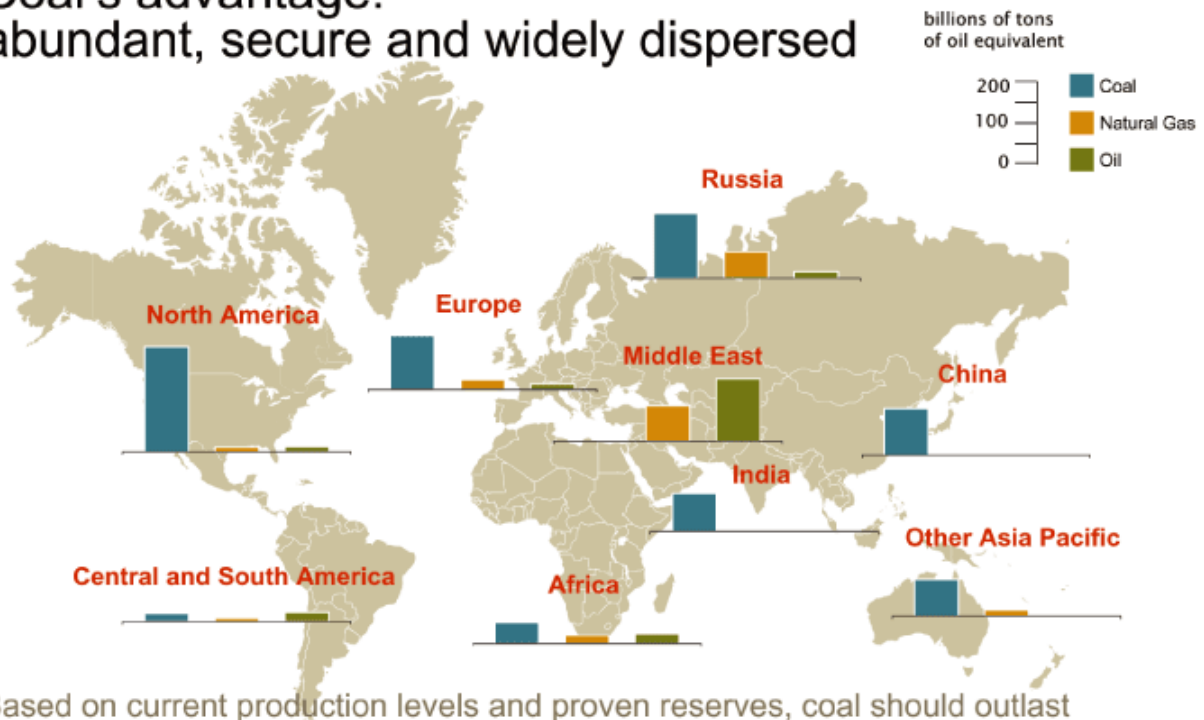
- **South America:** port infrastructure constraints; political instability; resource nationalism; growing regional coal burn
- **USA:** swing supplier to Atlantic basin market; available coal export capacity; imports into country declining
- **Europe:** coal production declining; growing coal burn in eastern Europe; traditional import supply avenues waning



Est. Seaborne Coal Supply Deficit (in million metric tons)



Coal's advantage: abundant, secure and widely dispersed



Based on current production levels and proven reserves, coal should outlast both gas supplies and oil reserves by **roughly 4 times**



In U.S. coal markets, Arch expects above-average demand growth over the next three years

<i>(in million tons)</i>	2008	2009	2010
Growth at Existing Coal Plants	-	+10	+10
New Coal Plant Demand ^{1/}	4	22	20
Increase in Gross Exports	24	10	10
Decline in Imports	2	-	-
Incremental Demand Growth	+30	+42	+40
Cumulative		+72	+112

^{1/} Net of coal plant retirements.

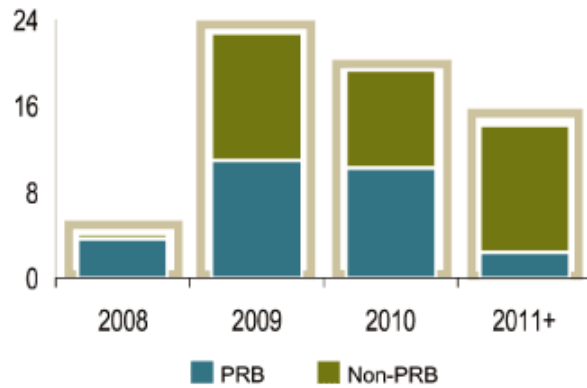
- U.S. coal demand to grow by more than **100 million tons** by 2010
 - **Average utilization increases** of ~1% annually over the past 10 years (2008 projected to be weaker economically)
 - New **coal plant build-out** will expand coal consumption meaningfully
 - U.S. is expected to become a more **significant net exporter** given shortage of coal supply worldwide and available port capacity



Largest coal plant build-out since 1980 will meaningfully expand coal demand

Anticipated Supply Region for Coal Plants Under Construction

(in millions of tons)



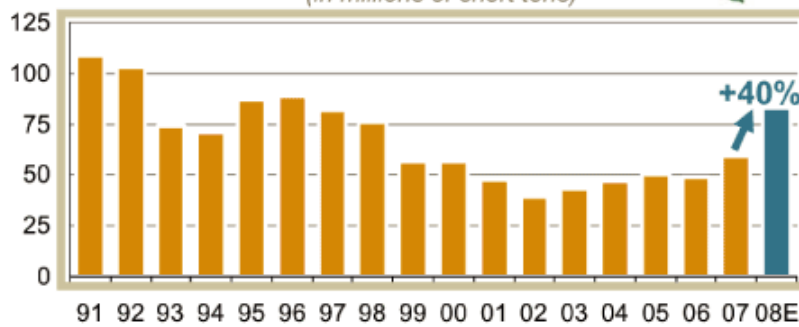
- Build-out of 17.5 GW equates to **62 million tons** of new annual coal demand over next four years
- **Powder River Basin** likely will service at least half of these plants
- More than 7 GW – another **20 million tons** – in advanced permitting stages

Available U.S. port capacity and strong international demand will expand coal exports

- Available eastern export port capacity at Baltimore and Hampton Roads
- Existing port capacity at southern ports of Mobile, New Orleans, Charleston and Texas
- Limited port capacity on West Coast



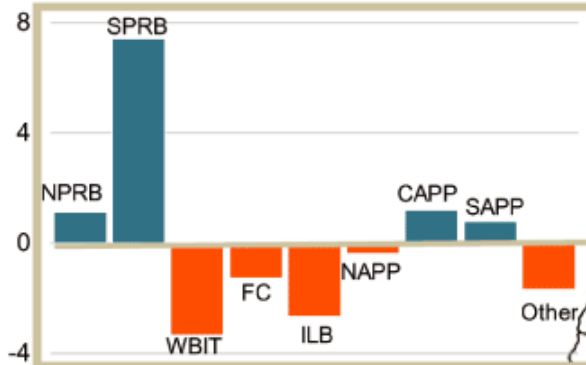
Annual U.S. Gross Exports
(in millions of short tons)



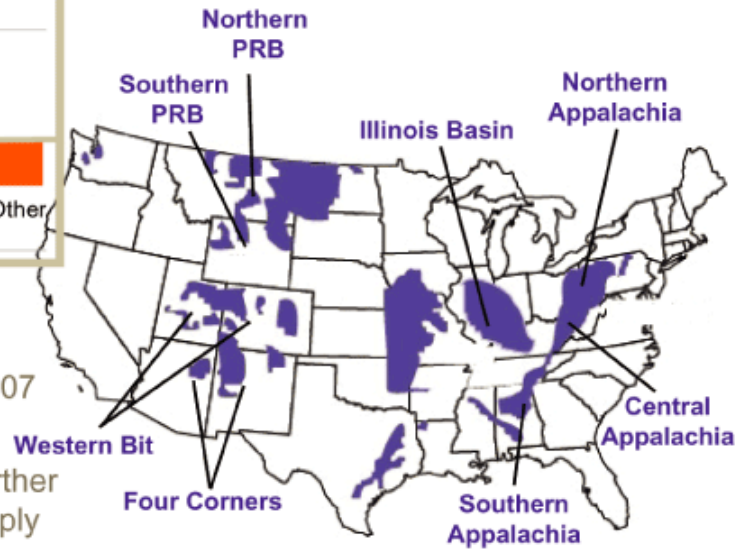
U.S. coal supply growth is not keeping pace with projected U.S. coal demand in 2008

Increase in 1H08 U.S. Coal Production

(versus 1H07, in million tons, per MSHA)



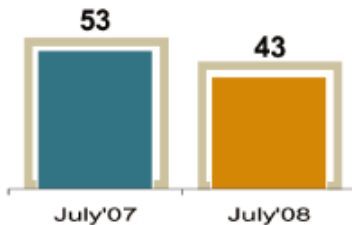
- First half 2008 total U.S. coal production increased just **1.2 million tons** vs. first half of 2007
- Some Appalachian steam coal is **crossing over** to met markets, further reducing available steam coal supply



Total U.S. coal stockpile levels appear adequate – with eastern days-supply levels indicating tightness

Eastern Inventory Levels

(in days of burn)



There is genuinely a **tightness** in the market driven by international fundamentals, global demands.

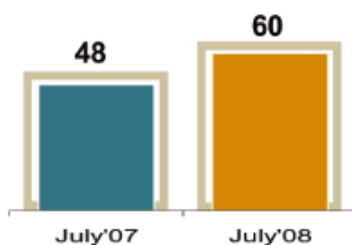
- AEP (5/08)

We have blended in an increasing amount of Powder River Basin coal, and we – while rebalancing the portfolio – have remained within our dispatch price targets by **blending in cheaper coals**.

- AEP (5/08)

Western Inventory Levels

(in days of burn)

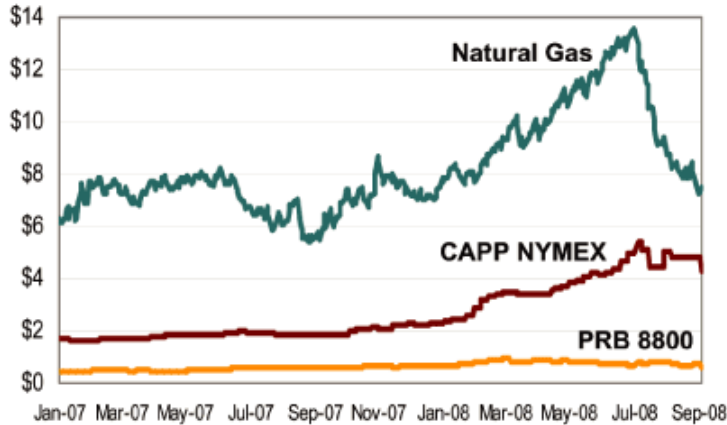


We did have the risk of **shortages** a year and a half ago ... our piles got pretty dramatically low ... **Coal conservation** in our instance affected our ability to sell some [power] into the wholesale market. With this, it showed that we need to have **more inventory** and we need to keep that stockpile. So, we certainly have **increased our [targets] ...**

- Great Plains Energy (5/08)

Pricing trends suggests that natural gas is still not competitive with coal; PRB has best upside

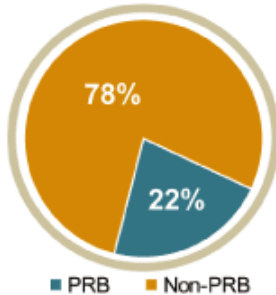
Pricing Comparison
(*\$ per million Btu*)



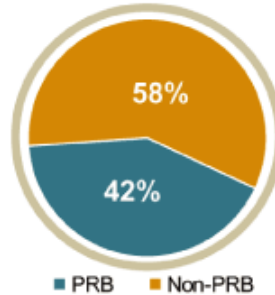
- At current CAPP prices, we could see **modest switching** in Southeast, if generators mark inventory to market
 - Regulated utilities are generally required to use a blended average fuel cost, which would be well below current market
- If gas were to step in front of coal as a baseload fuel – even at relatively modest volumes – **gas prices are likely to respond**
- The price of gas would have to fall **below \$4/mm Btu** for gas to compete with PRB-sourced plants

In past cycles, PRB coal has gained market share in border states just east of the Mississippi River

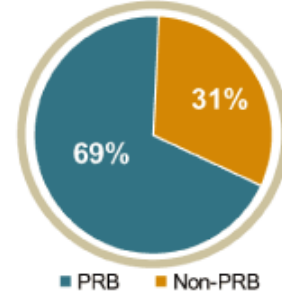
**Border States
East of Mississippi River**
Burn by Coal Type circa 1990



**Border States
East of Mississippi River**
Burn by Coal Type circa 1995



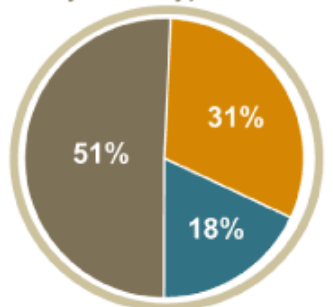
**Border States
East of Mississippi River**
Burn by Coal Type circa 2007



- **Eastern border state** power plants in Wisconsin, Illinois, Tennessee and Mississippi historically burned a small mix of PRB coal
- By 1995, power plants in these four states increased their mix of **PRB coal** from 22 percent to 42 percent in just five years
- Current 69 percent mix of PRB coal has been achieved with relatively **modest capital investment**

We foresee increased PRB market expansion opportunities further east of the Mississippi River

**Non-Border States
East of Mississippi River**
Burn by Coal Type circa 2007



■ PRB
■ PRB switching opportunity
■ Non-PRB

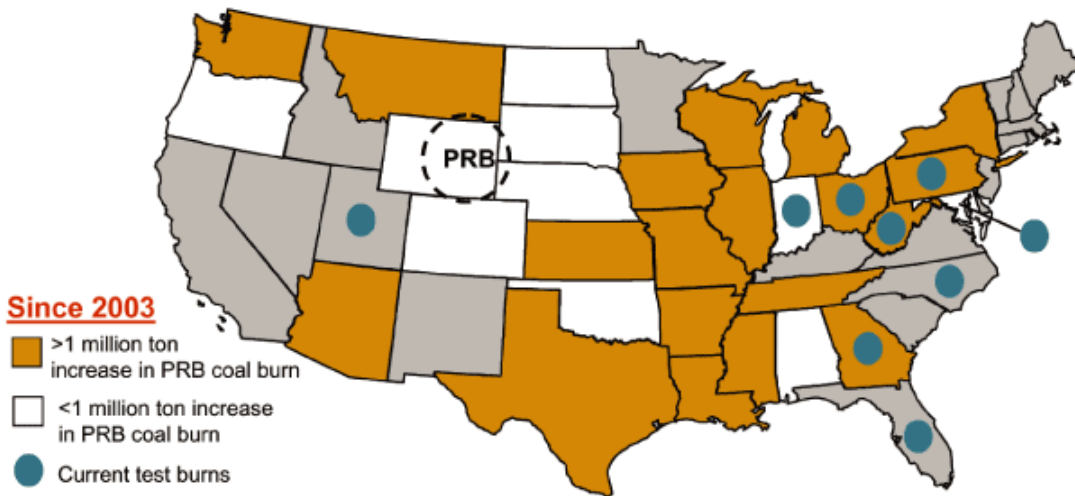


Eastern power plants in non-border states are generally **comparable in design** to plants in the border states

Non-border state plants should be able to **increase their PRB coal use** greatly with minimal investment

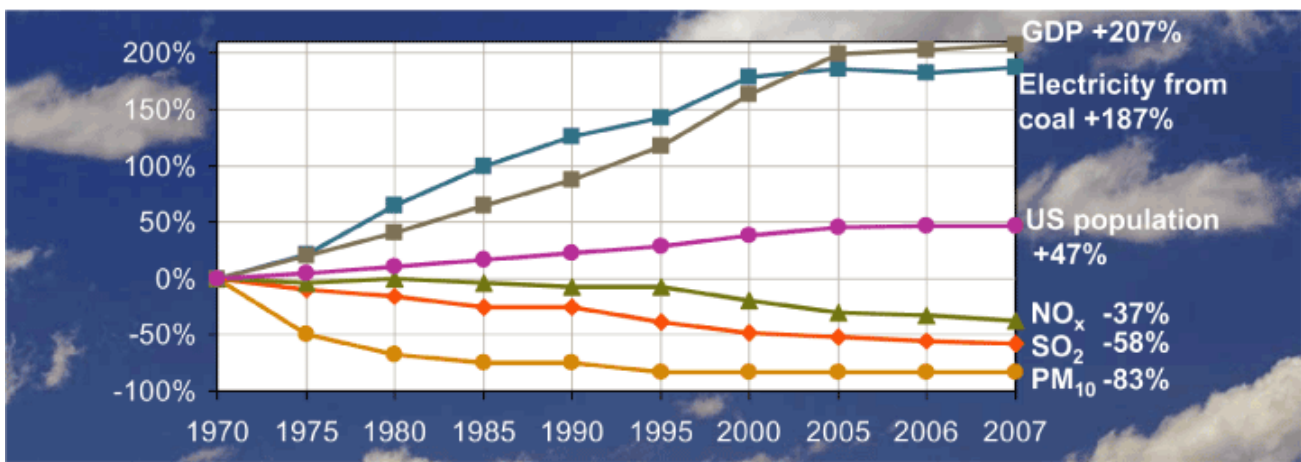
Based on historical switching in the border states and the lower heat content of PRB coal, the **theoretical PRB switching opportunity** in the East exceeds 300 million tons

In fact, PRB market expansion is underway



- PRB has expanded its reach by more than **80 million tons** in past 5 years
- In recent weeks, Arch has signed agreements with traditional and non-traditional PRB customers to **test** – as well as **increase burn** of – **PRB coal**
- We expect this trend to continue, with a significant increase in demand as generators complete test burns and assess needs for 2009 and beyond

Since 1970, coal has been used in increasingly clean ways in the United States



Higher efficiency rates and **carbon capture technologies** create opportunities for reducing carbon intensity as well



There is support for coal's essential role in America's energy future



"...we'll need to invest more in the clean technology that will allow us to burn more coal, our country's most abundant fossil fuel."

Senator Barack Obama (D-IL)

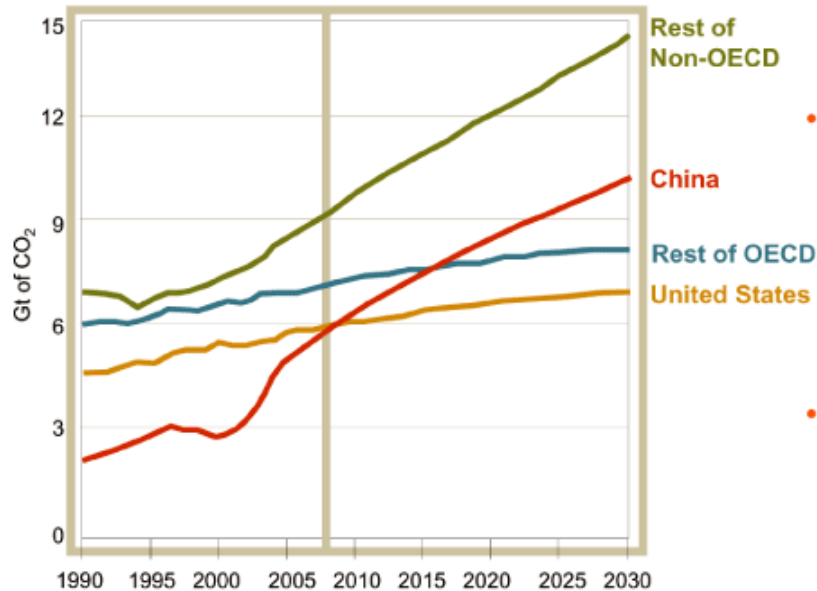
"We are sitting on the world's largest supply of energy in our coal reserves and that has to be one of the fundamental components of energy independence."

Senator John McCain (R-AZ)



Developed nations must adopt climate solutions and export them to developing nations

CO₂ Emission Trends
(1990 - 2030)



- China surpassed the U.S. in **GHG emissions** in 2007
- The growth rate of GHG emissions in **developing nations** is likely to significantly exceed that of developed nations
- Developed nations must invest in more **clean coal** technology research & development



Arch Coal is well-positioned for the future



- One of the **largest** coal producers in the United States
- We supply roughly **12 percent** of the U.S. coal supply
 - Provide cleaner-burning, low-sulfur coal to fuel 6 percent of the nation's electricity
 - Ship coal to domestic and international steel manufacturers as well as international power producers
- Our talented **workforce** operates large, modern and efficient mines
- Industry **leader** in mine safety, productivity and reclamation

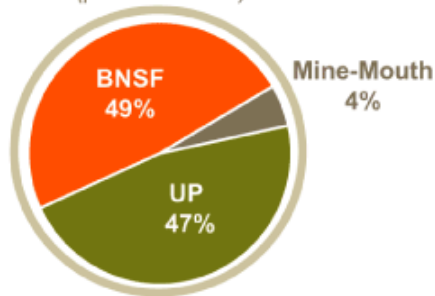


Our mine operations are equally distributed across all four major U.S. Class I railroads



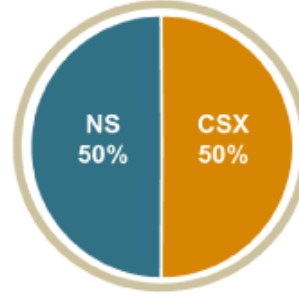
ACI Western Shipments

(percent of total)



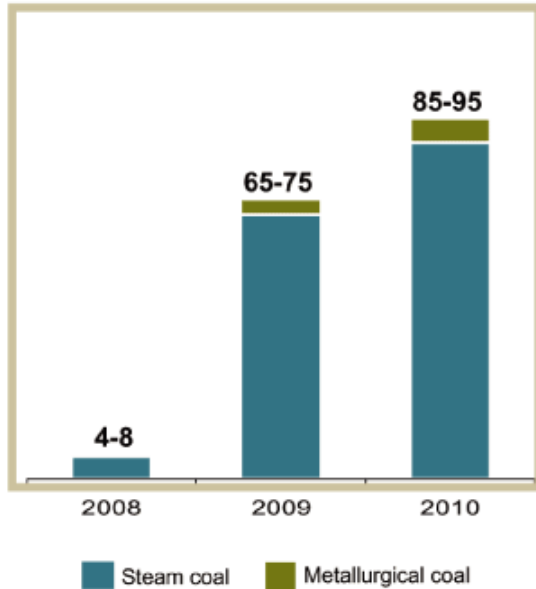
ACI Eastern Shipments

(percent of total)

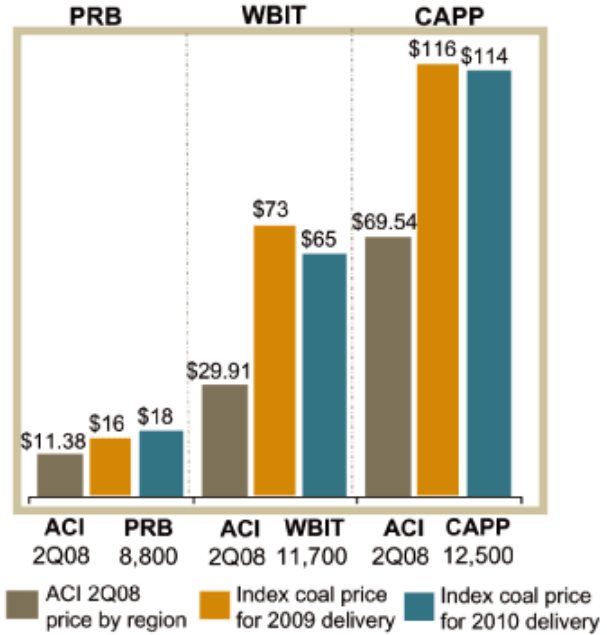


Arch's selective approach to signing new contracts retains future upside potential

Arch Unpriced Volume
(in millions of tons at 6/30/08)



Steam Coal Price Comparison
(\$/short ton, as of 9/12/08)



Our strategy on coal contracting continues to evolve

- Terms and conditions near bilateral
 - Embedded volume options all but gone
 - Seller's **sourcing flexibility** has become the norm
- Term agreements are making a comeback
 - Typically have "**market adjustment provisions**" (i.e. indexed to third party price plus an adder or cost recovery mechanisms)
- Arch open to creative approaches
 - Ensuring **all-in cost** plus risk adjusted returns
 - Guarantee price floors
- Many customers want **security of supply**
 - A large, physical and reputable coal producer can extract best value

Arch expanded seaborne terminal capacity, estimates company's met coal sales will double this year

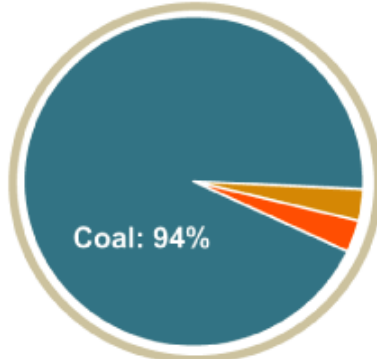


1 – Steam sales
2 – Met sales

 Arch Coal, Inc.

Over the long-term, Arch's coal-to-liquids vision can help America address energy security concerns

U.S. Energy Reserves
(in trillion Btu)



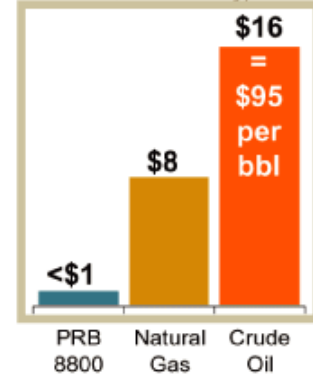
■ Coal ■ Natural Gas ■ Oil

U.S. Petroleum Supply
(million barrels per day)



■ Domestic ■ OPEC ■ Non-OPEC

U.S. Fuel Prices
(\$/million Btu at 9/15/08, Q109 delivery)

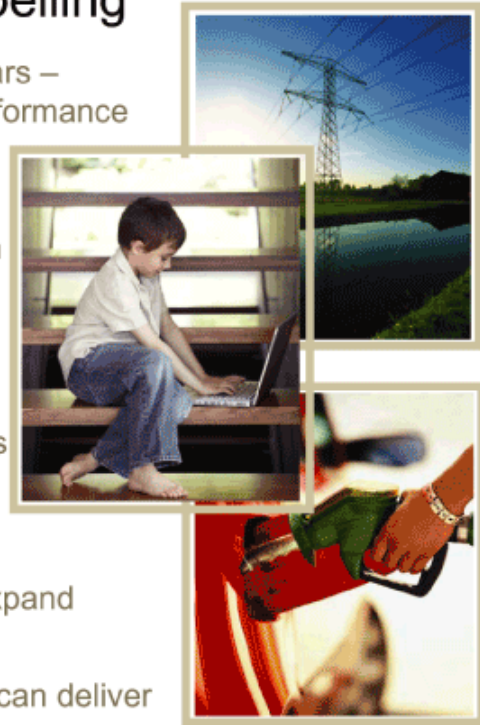


- Arch owns an **equity interest** in DKRW Advanced Fuels
 - Plan to build a 19,000 bpd **coal-to-gasoline facility** in southern Wyoming
 - Plant would capture CO₂ emissions to enhance recovery in domestic oil fields



Arch's future growth story is compelling

- Expect **record year** in 2008 based on our three pillars – safety, environmental stewardship and financial performance
- Experienced **workforce** and **corporate culture** committed to operating the safest, most efficient and environmentally responsible mines in the nation
- Large-scale, diverse and **low-cost operations** that are flexible in response to market demand
- **Strategic reserve base** well-positioned to meet America's – and the world's – growing energy needs
- Strong **balance sheet** provides Arch with financial flexibility and strategic opportunities
- Focus on advancing **clean-coal technologies** to expand market for coal beyond electricity generation
- Building a truly **world-class energy company** that can deliver substantial shareholder value over the long-term



 Arch Coal, Inc.



Arch Coal, Inc.



Arch Coal Analyst Mine Tour

John Eaves
President and Chief Operating Officer

Black Thunder Mine
September 18, 2008



Arch Coal, Inc.



Arch Coal Analyst Mine Tour

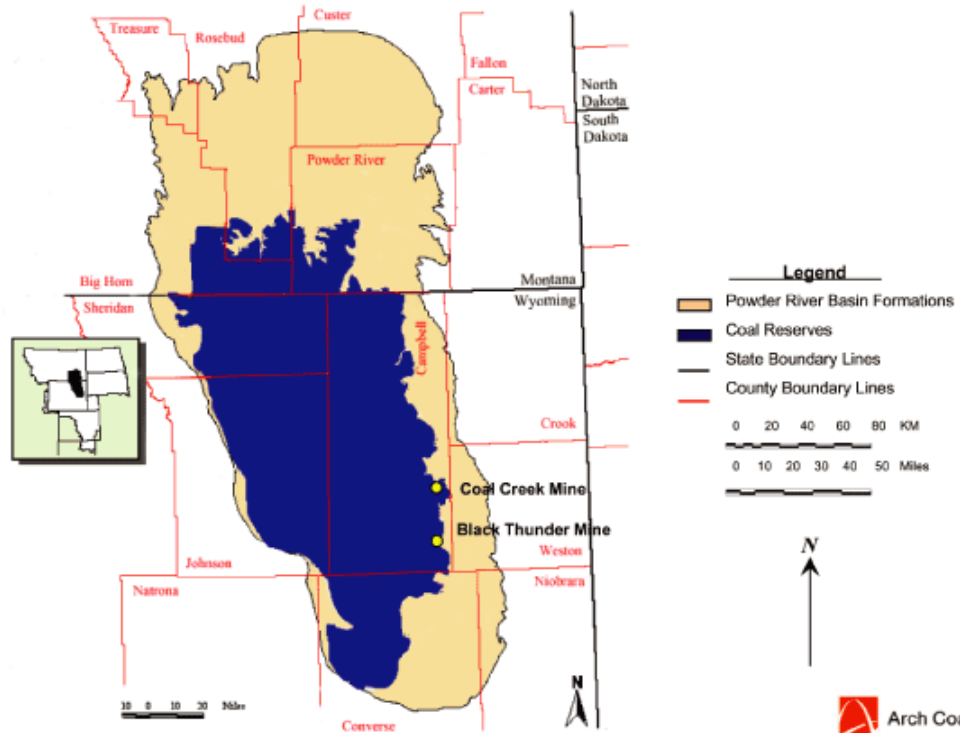
Keith Williams
Coal Creek Mine Manager

Black Thunder Mine
September 18, 2008

Forward-Looking Information

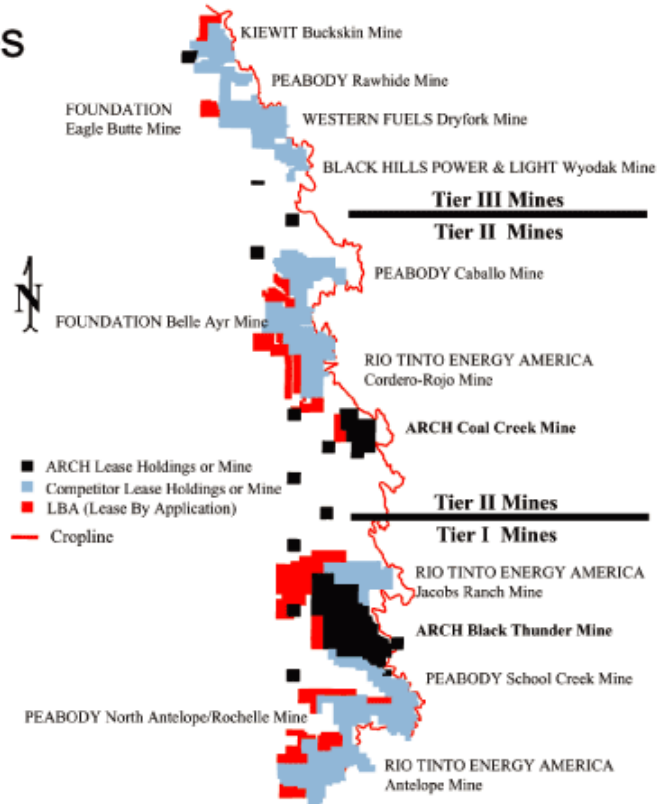
This presentation contains “forward-looking statements” – that is, statements related to future, not past, events. In this context, forward-looking statements often address our expected future business and financial performance, and often contain words such as “expects,” “anticipates,” “intends,” “plans,” “believes,” “seeks,” or “will.” Forward-looking statements by their nature address matters that are, to different degrees, uncertain. For us, particular uncertainties arise from changes in the demand for our coal by the domestic electric generation industry; from legislation and regulations relating to the Clean Air Act and other environmental initiatives; from operational, geological, permit, labor and weather-related factors; from fluctuations in the amount of cash we generate from operations; from future integration of acquired businesses; and from numerous other matters of national, regional and global scale, including those of a political, economic, business, competitive or regulatory nature. These uncertainties 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. For a description of some of the risks and uncertainties that may affect our future results, you should see the risk factors described from time to time in the reports we file with the Securities and Exchange Commission.

Wyoming's Powder River Basin



Powder River Basin Mines

Mine	2007 Production Tons (000)
Rawhide	17,100
Buckskin	25,300
Eagle Butte	25,000
Wyodak	5,000
Dry Fork	5,300
Evergreen Energy	130
Subtotal - Tier III	77,830
Caballo	31,200
Cordero-Rojo	40,500
Belle Ayr	26,600
Coal Creek	10,200
Subtotal - Tier II	108,500
Jacobs Ranch	38,100
Black Thunder	86,200
North Antelope-Rochelle	91,500
Antelope	34,500
Subtotal - Tier I	250,300
Total	436,630

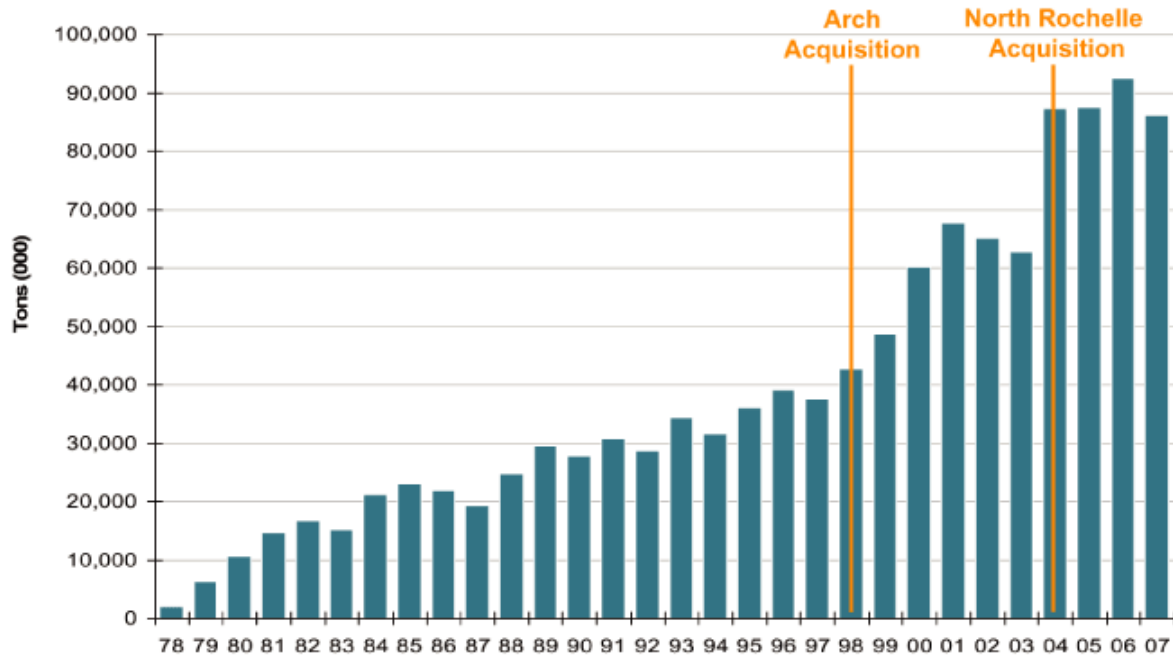


Black Thunder Mine Background

- First Coal Shipped: December 1977
- Acquired by Arch Coal: June 1998
- Current Lease Area: 28,400 acres
- Permitted Maximum Shipping Capacity: 135 million tpy
- Cumulative Shipments (December 2007): 1.3 billion tons
- Average Seam Thickness: 68 feet
- Assigned Reserves: 1.3 billion tons
- No. of Employees: 1,100



Historical Coal Shipments at Black Thunder Mine

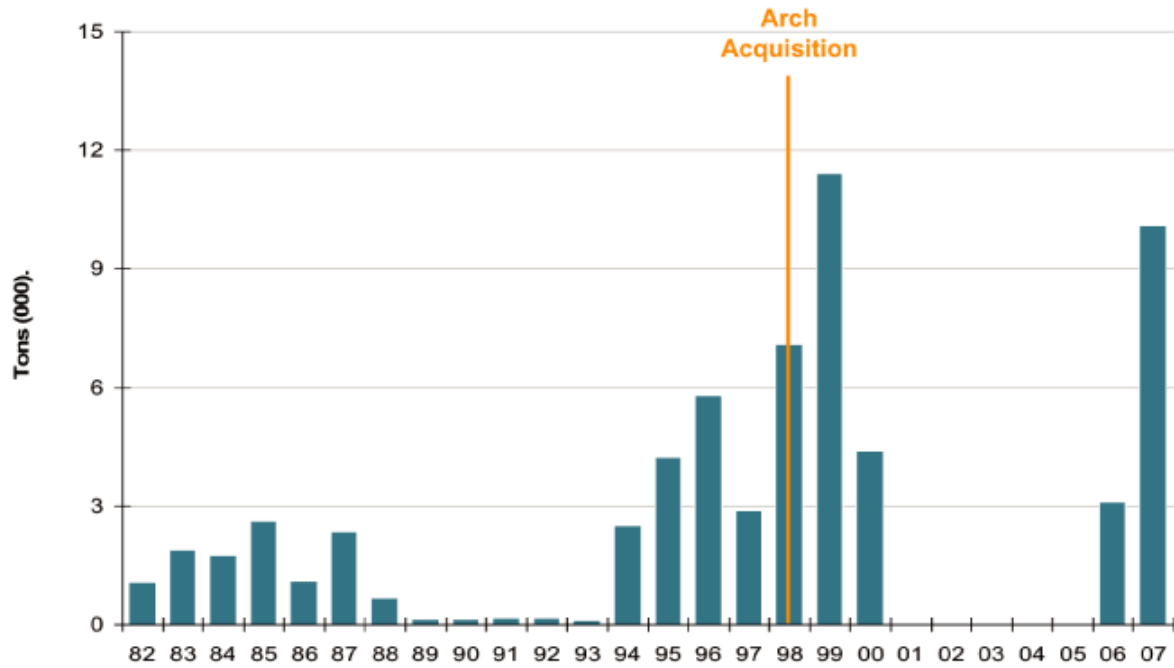


Coal Creek Mine Background

- Lease Acquisition Date: 1968
- Lease Area: 6,720
- Construction Start: Spring 1979
- First Coal Shipped: May 1982
- Acquired by Arch Coal: June 1998
- Permitted Maximum Capacity: 25 million tpy
- Cumulative Shipments (December 2007): 62.8 million tons
- Average Seam Thickness:
 - Roland 1 21.20 feet
 - Roland 3 9.90 feet
- Assigned Reserves: 214 million tons



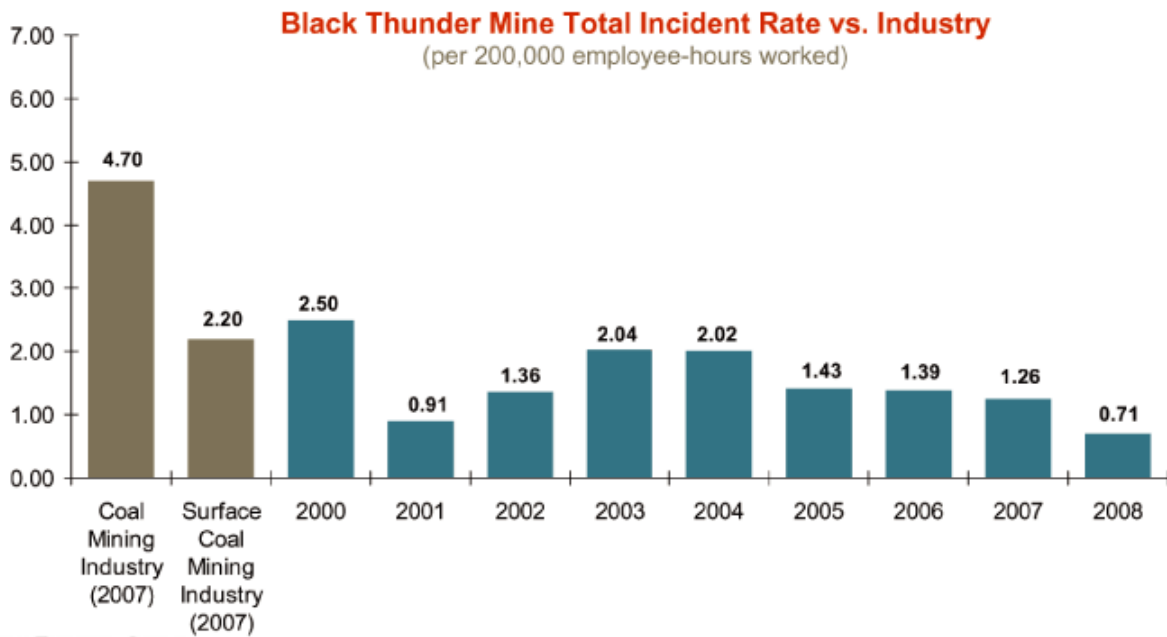
Historical Coal Shipments at Coal Creek Mine



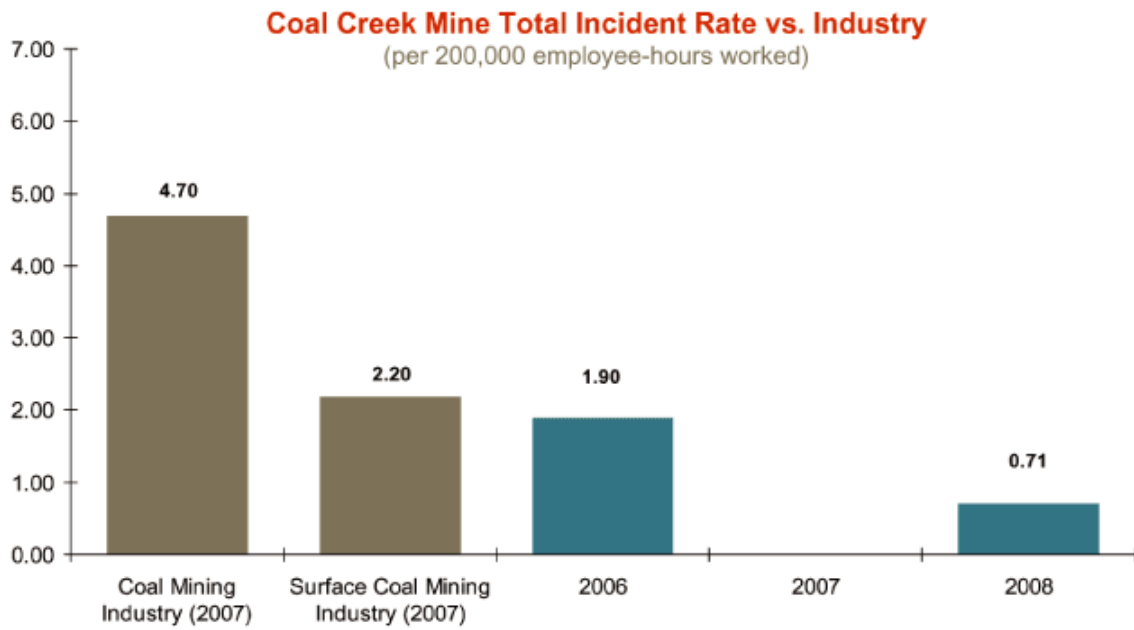
Major Power Plants Served by Coal Creek



Black Thunder is focused on continuous improvement in safety performance



Coal Creek achieved a 'perfect zero' in safety performance during 2007



Arch's PRB operations take their commitment to environmental stewardship seriously

- Since 2000, we've won **5 national and state awards** for environmental stewardship at our PRB operations
- More than 5,000 acres have been permanently reclaimed
- Actively involved in special wildlife habitat construction

Black Thunder Mine Reclamation Awards Since 2000

2007 Arch Coal President's Environmental Achievement Award
2006 Arch Coal President's Environmental Achievement Award
2006 Peck Community Service Award
2006 U.S. Department of Interior National Good Neighbor Award
2006 Wyoming Good Neighbor Award
2005 WY Industry Reclamation & Wildlife Stewardship Award
2002 Arch Coal President's Environmental Achievement Award
2002 United States Forest Service Prairie Partner Award

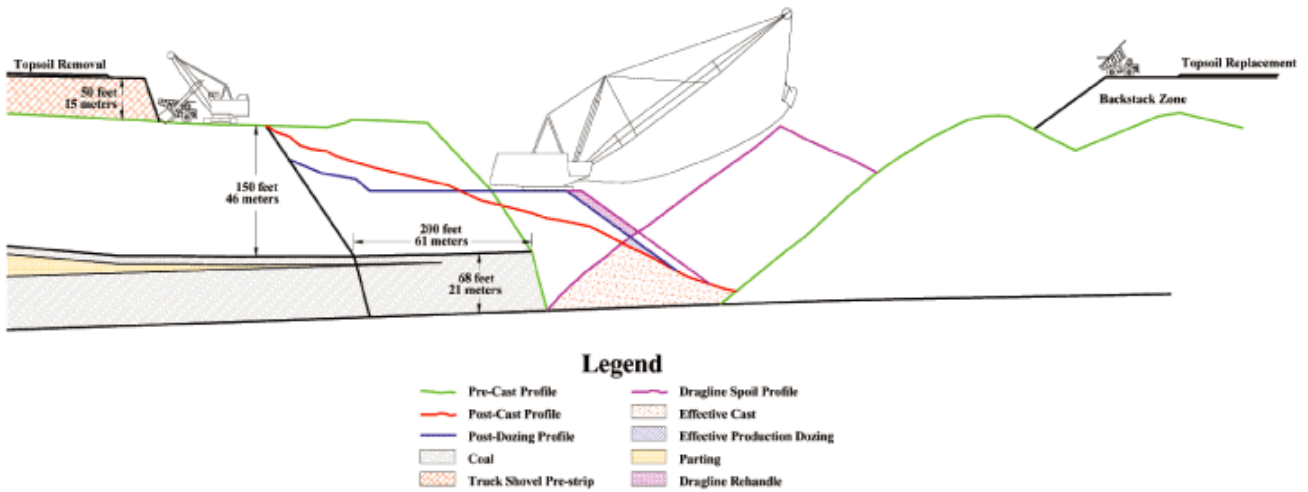


Black Thunder Mine – Stripping & Loading Equipment

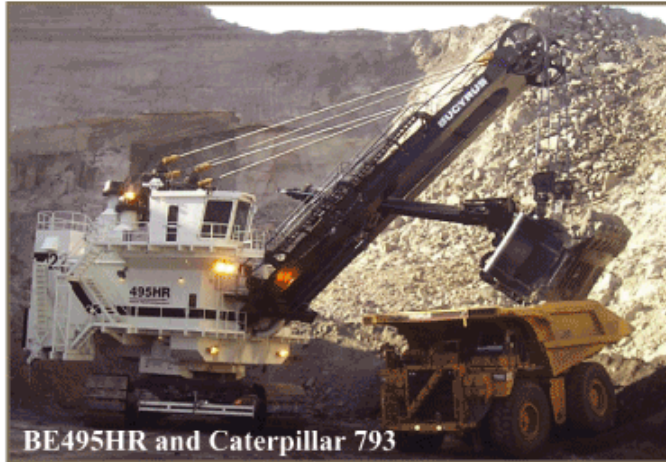
No.	Make	Model	Bucket (Cubic Yard)	Bucket (Cubic Meters)
1	Bucyrus	2570WS Dragline	164	126
1	Bucyrus	2570W Dragline	106	82
1	Bucyrus	1570W Dragline	78	60
1	Marion	8750 Dragline	130	100
1	Bucyrus	1300W Dragline	44	34
3	P&H	2800 Shovels (Coal)	65	50
3	P&H	2800 Shovels (Overburden)	36	28
2	Bucyrus	495HR Shovel (Overburden)	84	64
1	Bucyrus	495B Shovel (Overburden)	53	41
1	Bucyrus	495B Shovel (Coal)	84	64
1	P&H	4100XPB Shovel (Overburden)	68	52
1	P&H	4100 Shovel (Overburden)	53	41
1	Marion	351M Shovel (Coal)	84	64



Black Thunder Typical Mining Sequence



Black Thunder Mine – Truck/Shovel Overburden



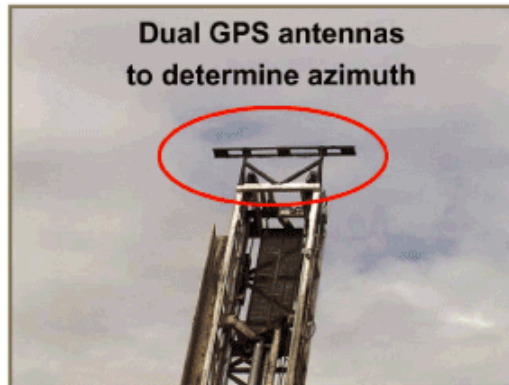
BE495HR and Caterpillar 793



P&H4100 and Caterpillar 793



Black Thunder Mine – Overburden Drill & Blast

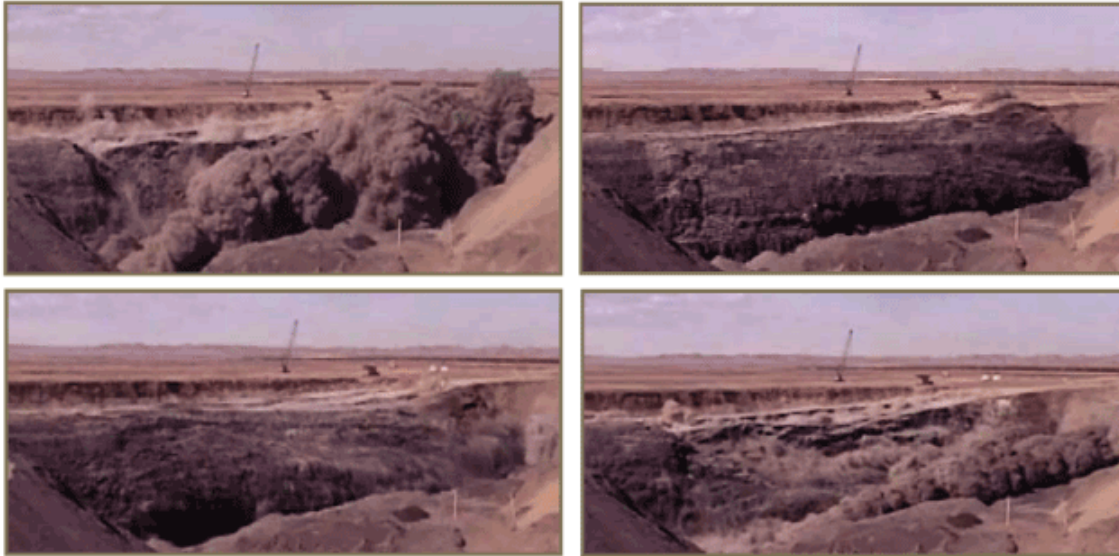


Overburden Drilling

- Diesel-powered drills – fleet of 5 drills
- Borehole diameter - 12¼-inch (311 mm)
- Angled holes – drilled at 60 degrees (highwall excavated on 55-degree slope)



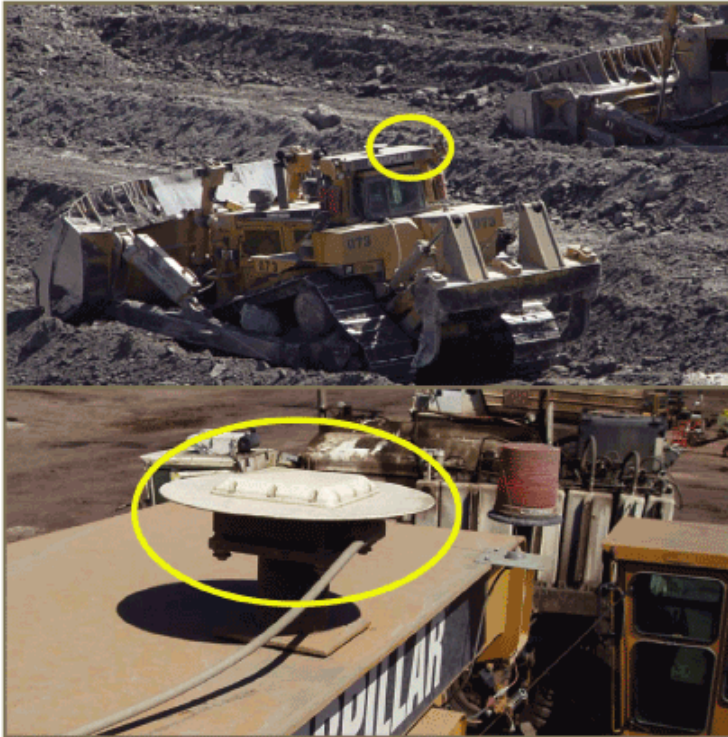
Black Thunder Mine – Cast Blasting



**Electronic Detonators –
sympathetic detonation eliminated**

2008 Cast Benefit
approximately 34%

Black Thunder Mine – Dozers



Black Thunder Mine – Dragline Stripping



Black Thunder Mine – Coal Mining



**P&H 2800
Shovel &
Komatsu 930E**



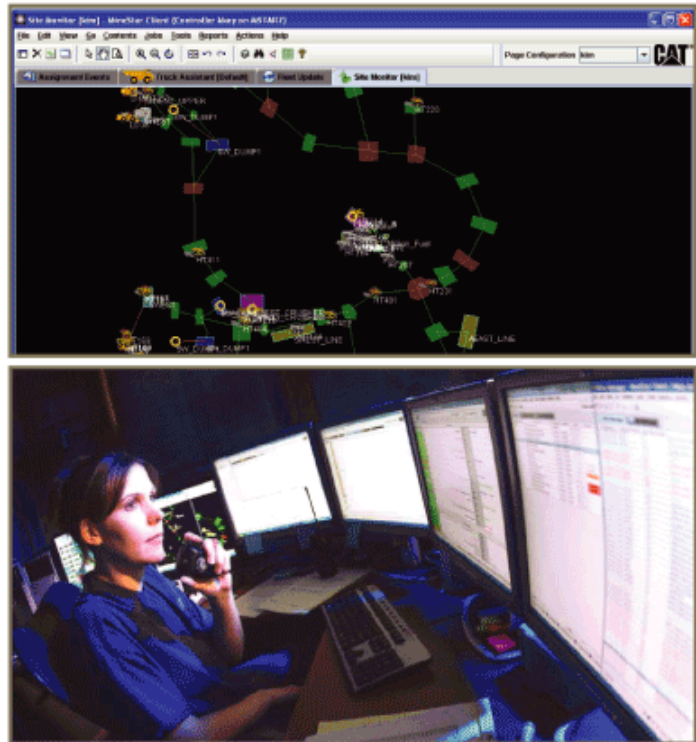
**Bucyrus 495B
Shovel &
Liebherr T262
240-Ton**



**Komatsu 930E
320-Ton**

Black Thunder Mine – Minestar Fleet Commander

- Real-time monitoring of:
 - mobile equipment utilization
 - material production & movement
 - equipment health
- Real-time control & optimization of haulage fleet – “Dispatch”
- Production plans prioritize production by loading unit:
 - mine plan sequencing
 - seam/coal quality
 - coal shipments by loadout
- Dispatcher & Minestar software manage production activities for crews with >160 operators
- Data recorded for reporting & analysis



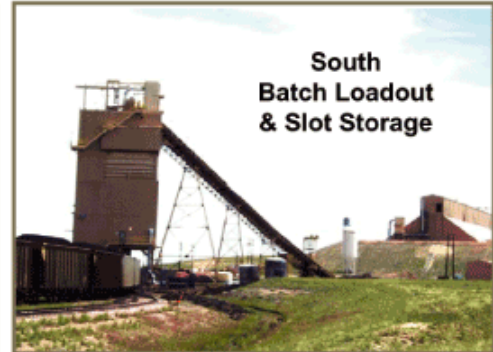
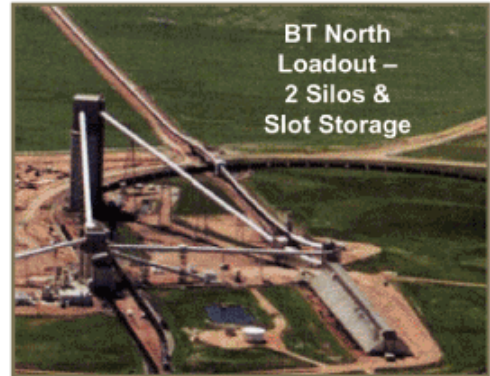
Black Thunder Mine – Coal Processing Facilities

Coal Storage Facilities

- Two 12,500 ton silos
- Two 17,500 ton silos under construction (completion Nov'08)
- One 100,000 ton slot storage
- One 50,000 ton slot storage

Train Loading Facilities

- BT North Train Loadout - 1.5-hr train loading time
- BT North Batch Loadout - 3.5-hr train loading time
- BT South Batch Loadout - 2.5-hr train loading time
- BT West Train Loadout - <1.5-hr train loading time (completion Nov'08)



Black Thunder Mine – Coal Processing Facilities

Truck Dumps – Crushing & Conveying Facilities

- Near Pit/Overland Conveyor (2 Truck Hoppers)
- Primary (original) System (2 Truck Hoppers)
- 5 West Crusher/Overland Conveyor (1 Truck Hopper)
- South Black Thunder Overland Conveyor (1 Truck Hopper)
- Thundercloud Crusher/Overland Conveyor (1 Truck Hopper)
(under construction – completion Nov'08)

Laboratory Analysis

- On-Site Laboratory
(ASTM Laboratory)
- 24 Hours Per Day
- 365 Days Per Year



Black Thunder Mine – Coal Processing Facilities



Black Thunder Mine
2007 As-Shipped Coal Quality

Parameter	North	South
Moisture (%)	26.88	26.98
Ash (%)	5.35	4.96
Sulfur (%)	0.30	0.21
BTU/lb	8832	8815
LbsSO ₂ /mmBtu	0.68	0.49



Black Thunder Mine – West Loadout Project

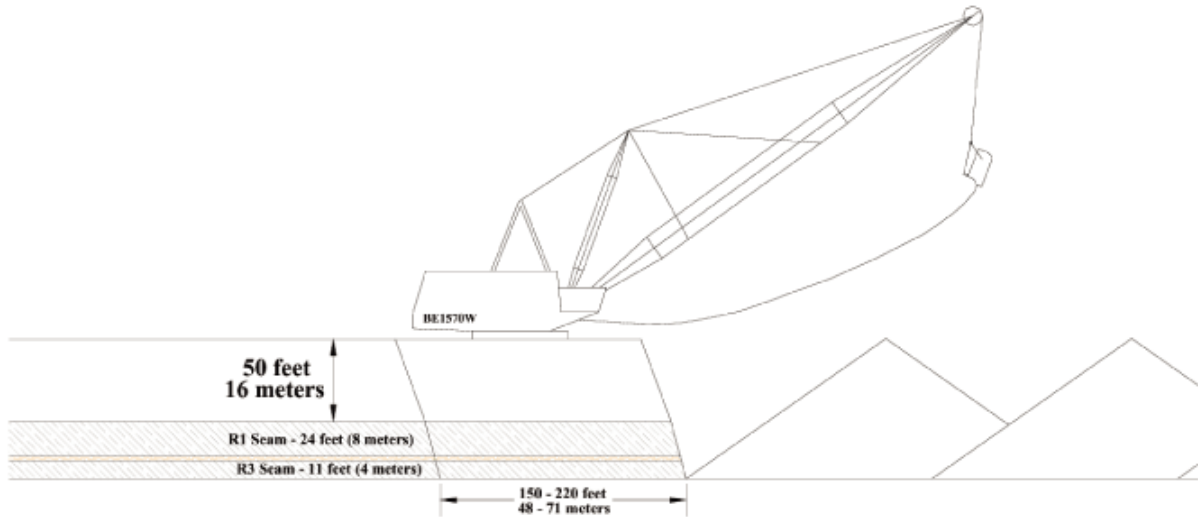


Coal Creek Mine – Major Equipment

No.	Make	Model	Capacity
1	Bucyrus-Erie	1570W Dragline	85 Cubic Yard
1	Bucyrus-Erie	295B Shovel	40 Cubic Yard
1	Bucyrus-Erie	195B Shovel	24 Cubic Yard



Coal Creek Typical Mining Sequence



Coal Creek Mine – Coal Handling Facilities

- Storage Capacity - Two 12,500 ton silos
- Train Loadout - 2 Hour Facility
- Truck Dumps
 - Primary System (Single Truck Belly Dump)
- Sampling System
 - Ramsey Primary Cutter
 - Birtley Secondary and Tertiary Cutters
 - HS&S Two Stage
- Laboratory Analysis
 - On-Site Laboratory (ASTM Laboratory)
 - 24 Hours Per Day
 - 365 Days Per Year

Coal Creek Mine
2007 As-Shipped Coal Quality

Moisture (%)	30.66
Ash (%)	5.77
Sulfur (%)	0.33
BTU/lb	8328
LbsSO ₂ /mmBtu	0.79



We're focused and ready to excel

- **Recognized leader** in mine safety and environmental stewardship
- A **top producer** in the Powder River Basin Region
 - Significant scale advantage
 - Employ efficient mining methods
 - Utilize cutting-edge technology
- Most upside to the **emerging Powder River Basin story**





Arch Coal, Inc.



Arch Coal Analyst Mine Tour

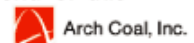
Paul Lang
Senior Vice President, Operations

Black Thunder Mine
September 18, 2008

Forward-Looking Information

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This presentation includes certain non-GAAP financial measures, including Adjusted EBITDA. These non-GAAP financial measures are not measures of financial performance in accordance with generally accepted accounting principles and may exclude items that are significant in understanding and assessing our financial results. Therefore, these measures should not be considered in isolation or as an alternative to net income from operations, cash flows from operations, earnings per fully-diluted share or other measures of profitability, liquidity or performance under generally accepted accounting principles. You should be aware that our presentation of these measures may not be comparable to similarly-titled measures used by other companies. A reconciliation of these financial measures to the most comparable measures presented in accordance with generally accepted accounting principles has been included at the end of this presentation.



Arch Coal, Inc.

Arch is continuing to enhance our reputation as a responsible energy company



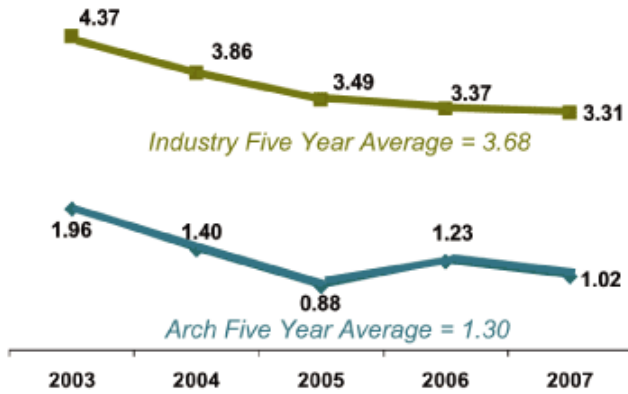
- Operating the world's **safest** coal mines
 - Awarded MSHA's Sentinels of Safety honor for operating the nation's safest underground coal mines in 2006 and 2007
 - Ranked first among coal industry peers for safety performance last year
- Acting as **responsible** citizens and good **environmental stewards**
 - Inaugural 2007 social responsibility report elevates awareness of Arch's environmental programs
 - Earned 3 National Good Neighbor Awards in 4 years
- Achieving superior **financial performance**
 - *Forbes* recognized Arch as one of the 100 most trustworthy U.S. companies of 2008
 - Expect 2008 to be a record earnings year



Arch's safety performance is the best among the largest public coal companies

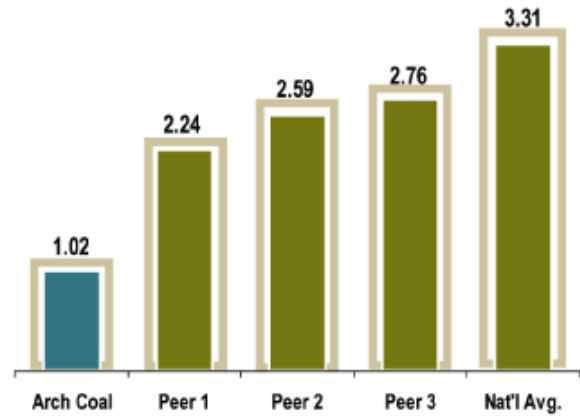
Annual Lost-Time Safety Incident Rate

(per 200,000 employee-hours worked)



Lost-Time Safety Incident Rate in 2007

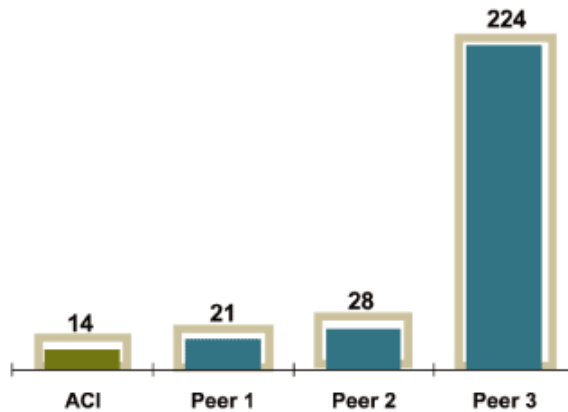
(per 200,000 employee-hours worked)



Arch's 2007 environmental performance ranked first among our coal peers

2007 SMCRA Violations

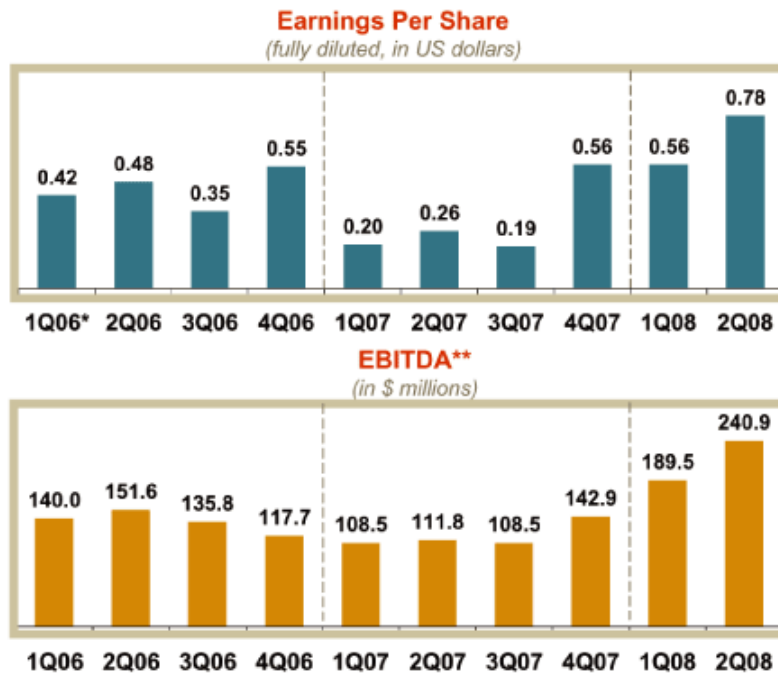
(number of violations compared to coal peers)



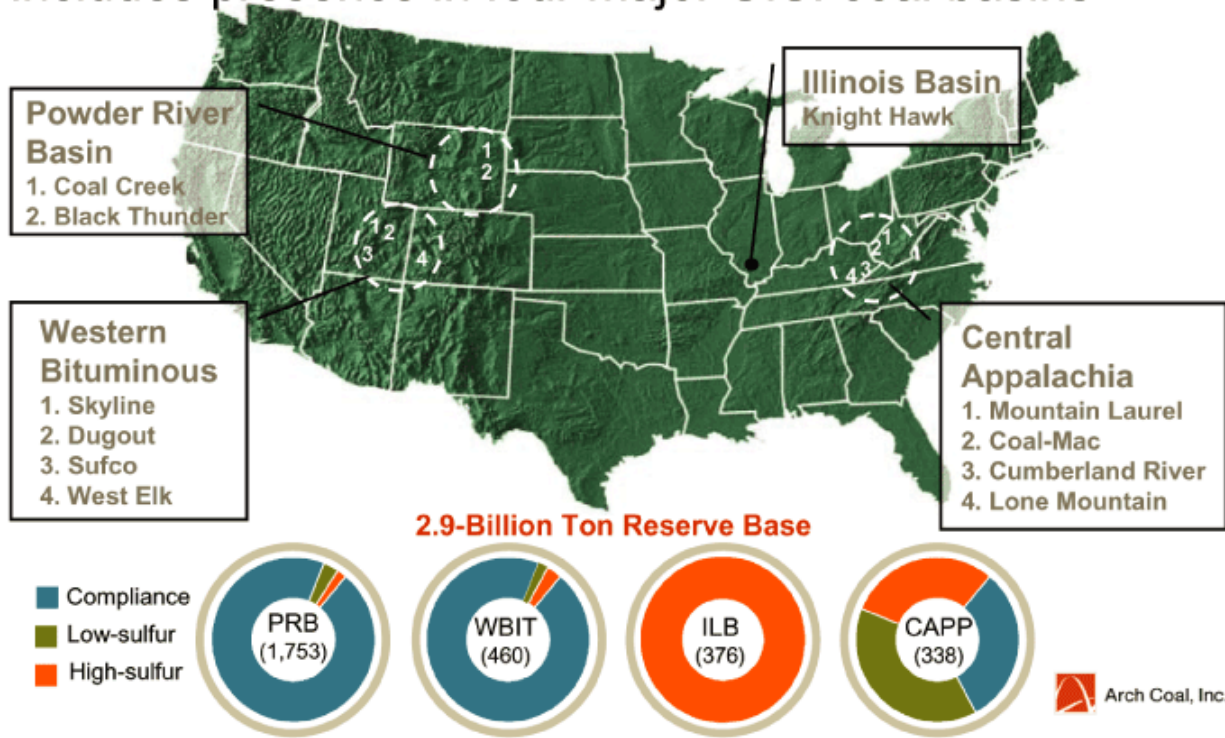
- Arch's 2007 environmental performance was the **best** in the company's 10-year history
- During the past decade, we've won more than **50 national and state awards** for environmental stewardship
- Our commitment to land reclamation demonstrates Arch's unique culture and dedication as a **responsible corporate citizen**



Arch is building a solid earnings track record, anticipates record earnings in 2008



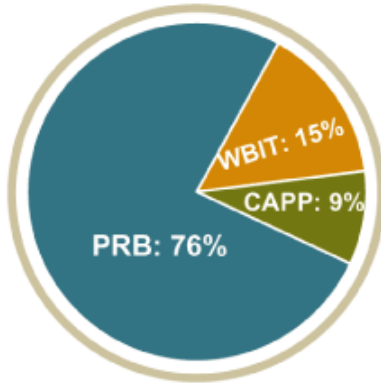
Arch's national scope of operations and reserve base includes presence in four major U.S. coal basins



Arch's mine portfolio underscores value of diversity

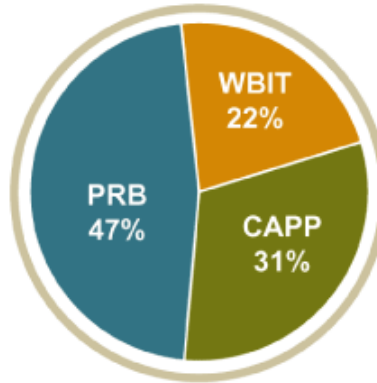
2007 ACI Coal Production

(percent of total tons by region)



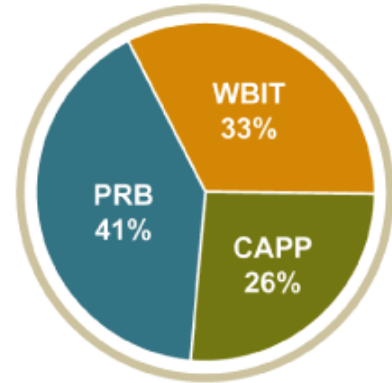
2007 ACI Revenue

(percent of total revenue by region)



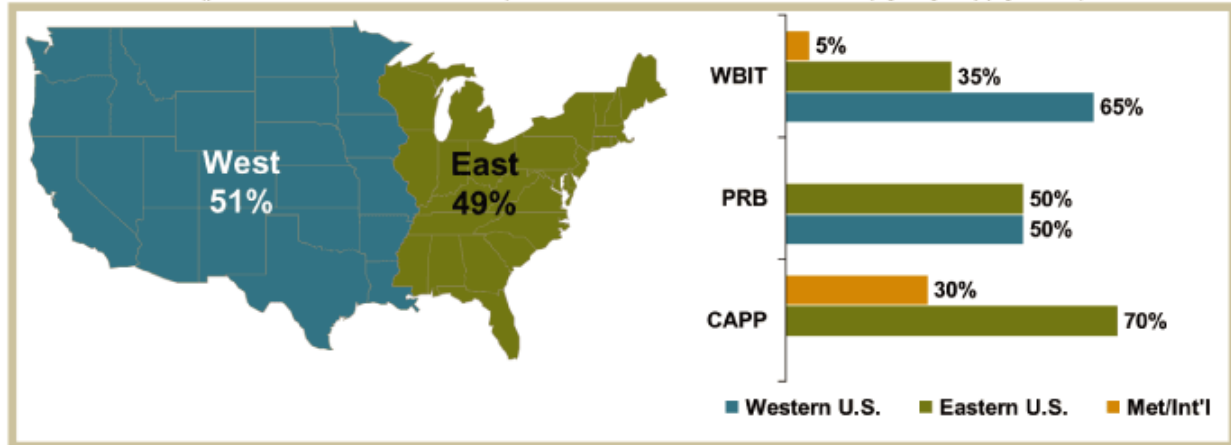
2007 ACI Income

(percent of segment income by region)

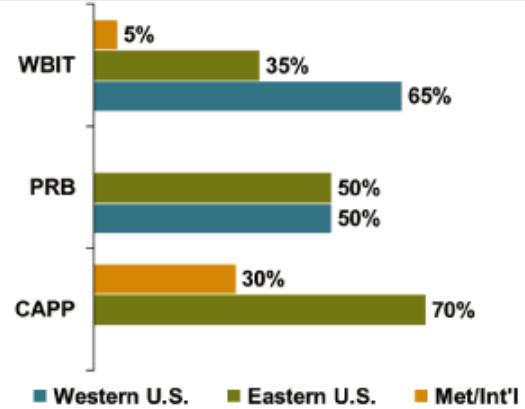


Arch's national operations serve a diversified customer base

2007 ACI Coal Sales
(percent of total sales volume)



ACI Customer Mix
(by key supply basin)

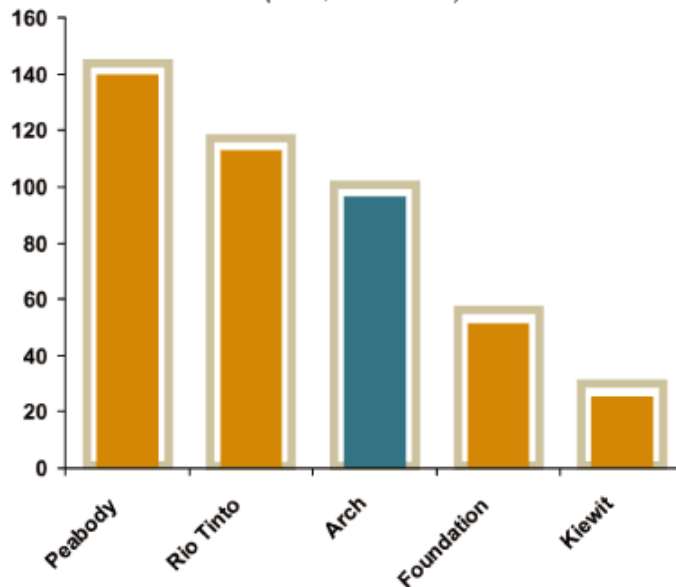


Arch's national network of mines services **148** coal-fueled power plants in **33** U.S. states and customers in more than a **dozen** countries worldwide



The Powder River Basin is the largest coal supply region in the United States

Major Producers in Powder River Basin
(2007, million tons)



- Total production in region of roughly **480 million tons**
- Roughly **50%** of PRB coal moves east of Mississippi River today
- Arch is one of the **leading producers** in the region



Arch Coal is one of the top producers in the Powder River Basin

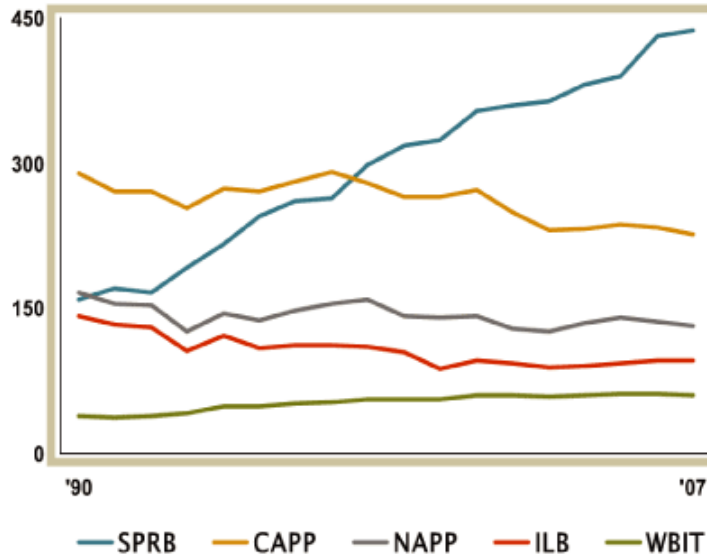


- **Black Thunder**
 - 5 draglines, 13 shovels
 - Sales*: 86.2 million tons in 2007
 - Coal quality: 8800 Btu/lb, 0.50-0.75 lbs. SO₂/mmBtu
 - 1,000+ employees
- **Coal Creek**
 - Dragline, shovel operation
 - Sales*: 10.2 million tons in 2007
 - Coal quality: 8400 Btu/lb, 0.85 lbs. SO₂/mmBtu
 - 130 employees



Since 1990, demand for Powder River Basin coal has grown at a faster pace than overall coal demand

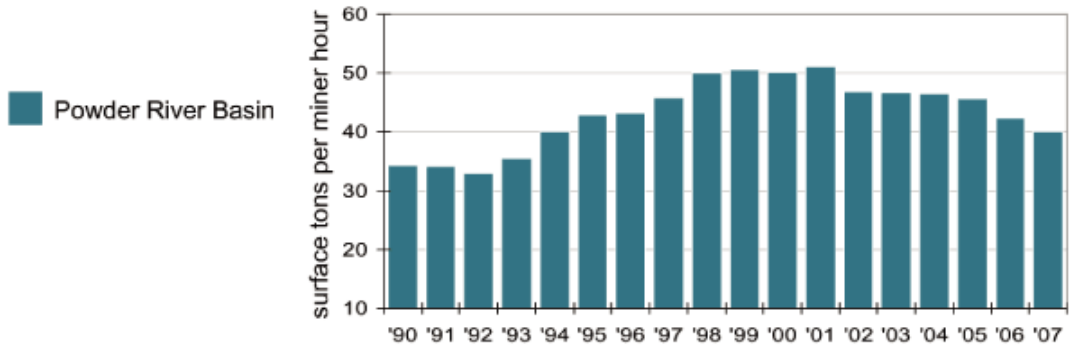
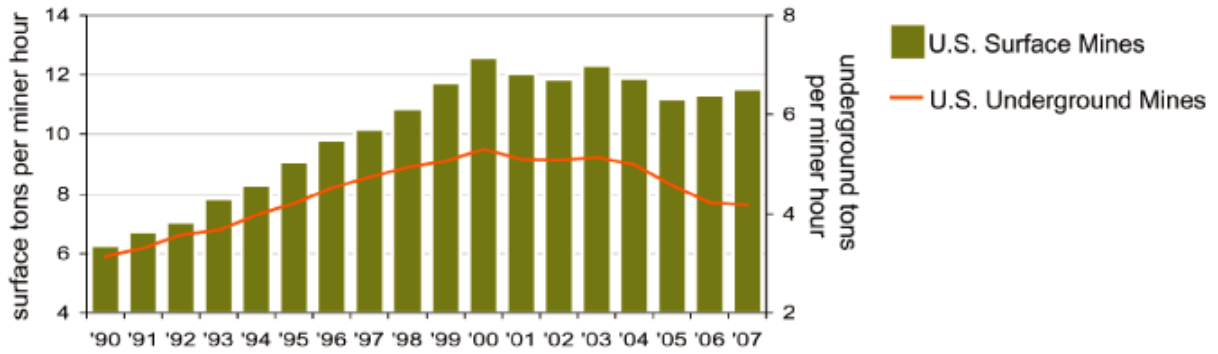
Production Growth by Major U.S. Coal Basin
(in million tons)



- PRB demand has grown at a **6% annual rate** since 1990
- Coal consumption for electric generation has grown at a **2% annual rate** since 1990
- **PRB's share** of U.S. coal production has grown from 16% in 1990 to 38% in 2007
- With supply shortfalls in the East coupled with demand from new plants, we believe PRB's market share will **continue to increase**



However, U.S. coal mining productivity has been on the decline since the start of this decade



Over the long-term, we see the Powder River Basin market reach extending into Asia-Pacific

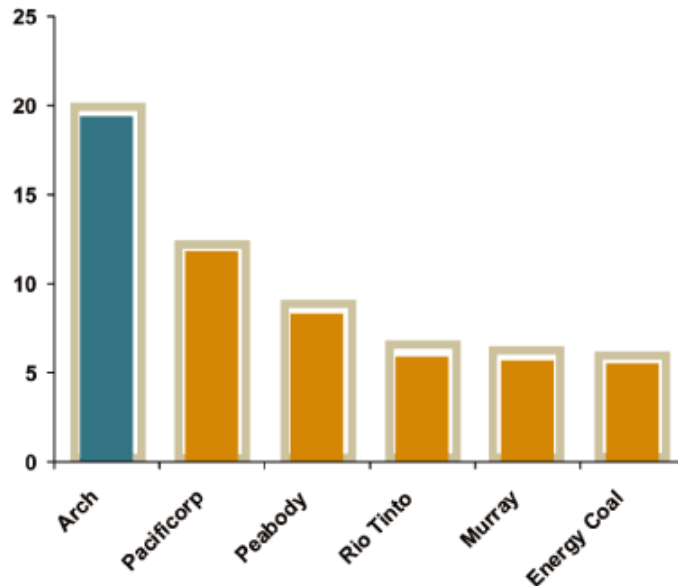


- Indonesia is a major coal exporter in the Asia-Pacific seaborne trade
- Growing domestic demand will likely keep more coal at home in Indonesia
- We believe that PRB coal can become a viable alternate coal supply source for the rapidly expanding Asian economies
 - Requires port expansion on the U.S./Canadian west coast
 - Potential to increase exports via the Gulf



Arch Coal is the leading coal producer in the Western Bituminous Region

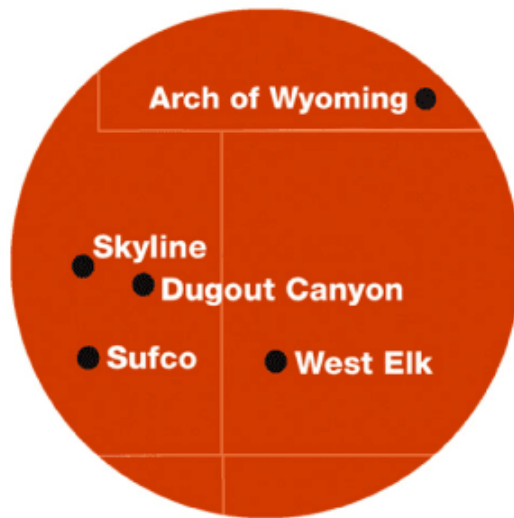
Major Producers in Western Bituminous* Region
(2007, in million tons)



- Total production in region of **77 million tons**
- Arch is the **largest producer** in the Western Bit region
- Western Bit coal is **expanding its reach** to Midwest and eastern power producers as well as overseas



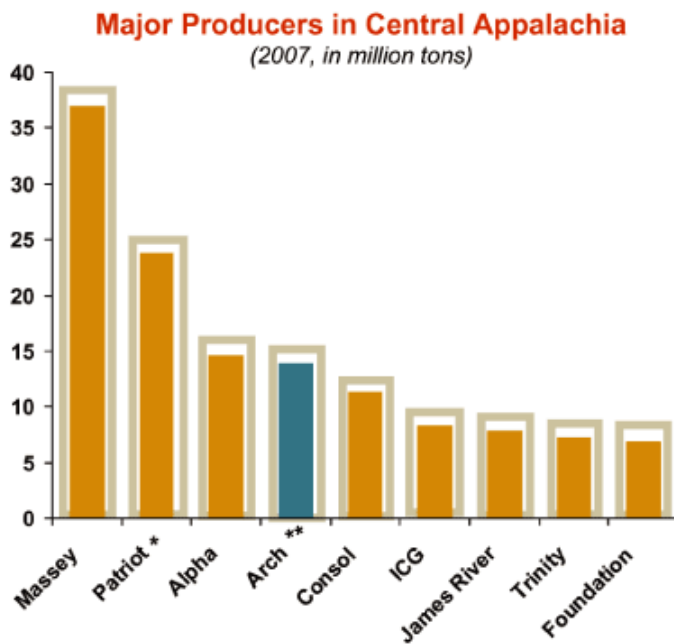
Arch's Western Bituminous operations are some of the most productive longwall mines in the nation



- Four longwall operations with combined production of **19.3 million tons** in 2007 and workforce of 800
- **Low-sulfur** coal quality averages 11,700 Btu/lb, 0.80 lbs. SO₂/mmBtu
- Limited **opportunity to expand** over time
- Arch of Wyoming / Carbon Basin reserves are site of future **coal-to-liquids** project with DKRW



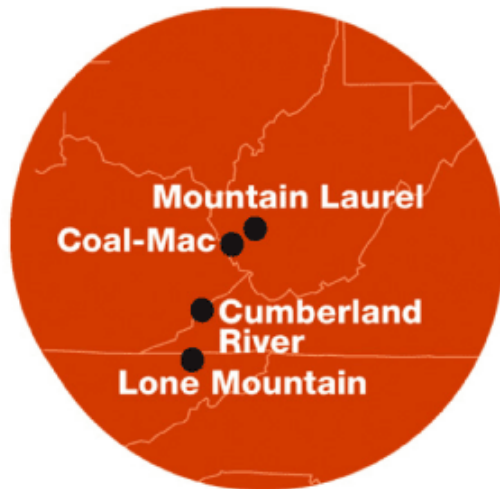
Arch has maintained a meaningful position in Central Appalachia



- Total production in region of **226 million tons**
- Production in this region is fragmented
- Annual production in Central App. region has **declined** by more than 60 million tons since 1997



Arch remains a key producer of metallurgical and steam coal in Central Appalachia

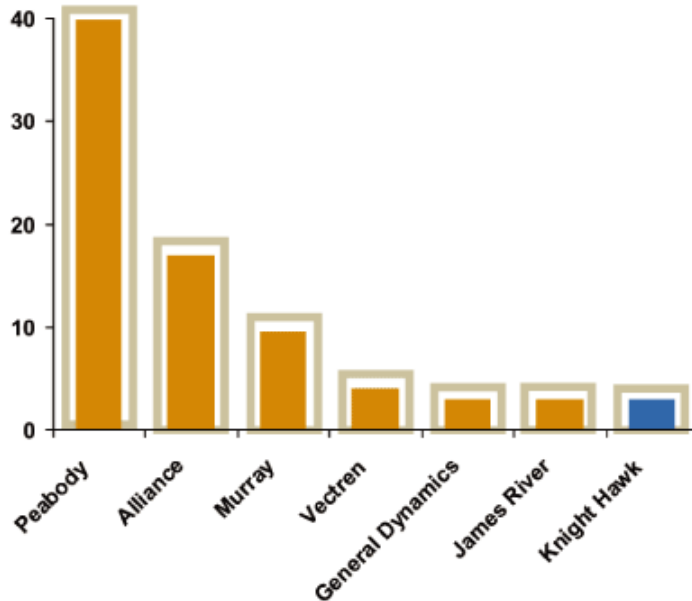


- Expect to produce **13-14 million** tons in 2008 through a combination of underground and surface operations
- Operations in West Virginia, Kentucky, and Virginia with **1,300+** direct employees
- **Opportunity to expand** production to 15 million tons in 2009 with brownfield or equipment investments
- Expect to sell roughly 4 million tons into **met markets** in 2008; up to 6 million tons in 2009



Arch is preparing for rebound in Illinois Basin demand

Major Producers in Illinois Basin
(2007, million tons)



- Total production in region of **96 million tons**
- Arch owns a 33% equity interest in **Knight Hawk**
- As scrubbers come online, market **opportunities** will develop
- Region well positioned to export via **Gulf** of Mexico



Arch has built an extensive and competitive reserve base in the Illinois Basin

- Acquired 157 million tons of reserves in southern Illinois for roughly \$39 million in October 2007
- Now control a nearly 300-million-ton continuous reserve block of **high-Btu, low-chlorine coal**
- Gives Arch the option to build a low-cost, mine-mouth facility for the domestic utility market or a CTL plant, depending on future market conditions
- Arch also owns an equity interest in Knight Hawk Holdings, a top 10 producer in Illinois

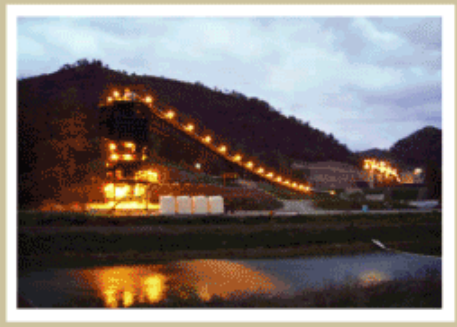


We continue to seek new and innovative ways to manage our controllable costs at all of our mines

- **Increasing coordination** through centralized purchasing, operations, safety and environmental affairs
- Building a culture of continuous **process improvement** efforts to encourage innovative solutions and share best practices
 - Est. \$18 million cost-savings per year in 2007 and 2006
- **Predictive maintenance** reduces unplanned downtime and overtime, extends equipment life
 - Est. \$18 million cost-savings in 2007, \$11.5 million in 2006
- Focusing on cost control of **major consumables** such as diesel, electricity, explosives (natural gas) and tires (petroleum product)
 - Building alliances with major vendors; hedging; long-term supply arrangements



Coal blending optimization allows Arch to better monetize every Btu



- **Blending optimization** models allocate mine production to sales contracts, thus maximizing margin
 - Models allow sales team to know real value in 100 Btu increments
- **Dynamic coal quality targets** provide monthly rolling quality averages for each customer so loading sources can adjust blends and provide optimum coal recovery
 - Additional space at DTA terminal allows for precision blending of **international** shipments to generate the greatest volume of our premium valued products
- Through coal blending optimization, Arch achieved an additional **\$10 million** in coal revenues in 2007



We're focused on creating shareholder value as the energy industry expands



- **Recognized leadership** in mine safety and environmental stewardship promotes higher productivity and helps attract best-in-class workforce
- Rigorous **focus on cost control** and judicious capital spending helps expand margins
- Strong understanding of **world and domestic market trends** allows us to anticipate timing of future coal supply/demand
- **Financial flexibility** allows us to consider future investments for organic and strategic growth and capital enhancements
- A clear focus on **clean coal** in an evolving marketplace allows Arch to leverage our innovative expertise and expand market for coal



EBITDA Reconciliation Chart

Included in the accompanying presentation, we have presented certain non-GAAP measures as defined by Regulation G. The following reconciles these items to net income as reported under GAAP.

Arch Coal, Inc.				
Adjusted EBITDA				
	1Q 06	2Q 06	3Q 06	4Q 06
Net income	\$ 60,687	\$ 69,717	\$ 50,927	\$ 79,600
Income tax (benefit) expense	17,900	13,000	12,100	(35,350)
Interest expense, net	14,157	15,323	15,602	15,557
Depreciation, depletion and amortization	45,821	51,713	53,641	57,179
extinguishment and other non-operating	1,393	1,808	3,572	674
	-			
Adjusted EBITDA	<u>\$ 139,958</u>	<u>\$ 151,561</u>	<u>\$ 135,842</u>	<u>\$ 117,660</u>
	1Q 07	2Q 07	3Q 07	4Q 07
Net income	\$ 28,724	\$ 37,552	\$ 27,280	\$ 81,373
Income tax (benefit) expense	4,650	(2,400)	5,100	(27,200)
Interest expense, net	16,587	18,280	16,638	20,760
Depreciation, depletion and amortization	57,620	57,990	58,628	67,824
extinguishment and other non-operating	902	418	806	147
	-			
Adjusted EBITDA	<u>\$ 108,483</u>	<u>\$ 111,840</u>	<u>\$ 108,452</u>	<u>\$ 142,904</u>
	1Q 08	2Q 08		
Net income	\$ 81,147	\$ 112,997		
Income tax (benefit) expense	15,240	37,700		
Interest expense, net	20,063	18,253		
Depreciation, depletion and amortization	73,042	71,953		
extinguishment and other non-operating	-	-		
Adjusted EBITDA	<u>\$ 189,492</u>	<u>\$ 240,903</u>		

