A concise Guide to Wyoming Coal 2004



An industry overview produced by the

Wyoming Coal Information Committee <u>Wyoming</u> COAL Wyoming Mining Association

www.wma-minelife.com

Wyoming Coal Trends

Wyoming coal mines led the nation in 2003 for the 16th consecutive year producing 376 million tons of coal. Even though total U.S. production declined by 25 million tons, Wyoming had yet another record-setting year, outpacing the previous year's production by over three million tons. Total coal consumption increased slightly with electric utilities in the U.S. increasing coal consumption by 2.4 percent. Coal continues to serve as the largest component fuel of base-load generating capacity, supplying 53 percent of total U.S. electrical power.





Wyoming coal production (tons), 1969 to 2008 (projected)

Source: Wyoming State Geological Survey

Wyoming supplies 35 percent of the nation's coal production.

Growing energy needs continue to stimulate Wyoming coal production. While tonnage at mines in Appalachia and the Midwest is declining, Wyoming coal production, particularly in the Powder River Basin, is increasing. This is for several reasons: worldclass coal seams, some over 80 feet thick; proximity of the coal to the surface; and a desirable low-sulfur composition. On average, 65 unit trains leave the Powder River Basin each day. Weighing between 11,000 and 15,000 tons, the 120 to 150 car trains carry coal to energy markets throughout the country.

Average Statewide Price Per Ton, Wyoming Coal



Source: Wyoming State Geological Survey

Wyoming coal production increased almost 1 percent from 2002 to 2003, an increase of over 3 million tons. At this rate, Wyoming production is expected to reach 400 million tons annually by 2008, with the majority coming from Powder River Basin mines.

While the average price for Wyoming coal rose 2.1 percent from 2002 to 2003–from \$6.66 to \$6.80 per ton–coal prices are still substantially below the levels seen in the mid-1980s.

The coal industry continues to be a stable source of employment for Wyoming. Since 1990 the average annual variation in employment in the coal sector has been less than 3 percent. In 2003, Wyoming coal mines employed 4,788 people. It is estimated that each coal-mining job supports 3 related jobs in other sectors for a total of more than 18,700 coal related jobs statewide.

Coal industry jobs are also among the best paying in Wyoming.The U.S. Department of Commerce reports total labor earnings of \$312.7 million for coal mining in Wyoming, representing average

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earnings per job in the coal industry of more than \$64,000 (This does not include health benefits or other employer paid compensation that could add up to 40 percent more). This wage level is twice the state average of \$32,000 per job. The combination of both direct and secondary employment—jobs created by the coal industry—results in significant benefit for the state. In 2000, for example, total payroll generated by direct and secondary employment exceeded \$634 million.

Coal mining is an extremely competitive industry. Even Wyoming's cost-effective mines must continually increase productivity in order to maintain their position in the market place. The productivity of Wyoming coal mines is truly remarkable. Based on tons per employee per year, productivity increased over 700 percent between 1969 and 2003. Productivity only slightly decreased in 2003 due to additional employees added by the mines. A key aspect of Wyoming mining productivity is the large scale of industry operations—without it, Wyoming mines would not be competitive.

The importance of coal as a domestic fuel source cannot be overstated. This point has been underscored by world events of the last several years. Wyoming's role in providing this resource has not gone unnoticed in utility markets. Rising natural gas prices, the relatively low cost of coal, and new "zero-emission" coal-fired power plants, mean more coal plants will move from planning to construction.

Wyoming Coal Mining Employment, 1990-2003



Source: State Inspector of Mines of Wyoming



Source: U.S. Department of Commerce, Bureau of Economic analysis

For example, City Public Service of San Antonio has announced its intentions to construct a 750-megawatt power plant to be fueled by Powder River Basin coal. And Mid-American Energy is adding a new 790-megawatt plant in Council Bluffs to its existing 890-megawatt facility, also powered by PRB coal.



Unit train loading with Wyoming coal

Another sign of the positive attitude toward future coal use is reflected in the longer term coal purchase contracts with utility companies. Several years ago, buyers opted for shorter term contracts as they tried to capture lower costs in the spot market. Now, however, utilities are locking in fuel sources for longer periods of time as a reflection of their need and committment to coal.

Coal is also an important source of revenue for state and local governments in Wyoming. It is estimated that in 2003 coal contributed \$535 million to state and local governments. This amount includes the following taxes that generate revenue for state and local governments in Wyoming. (Note: the coal industry also pays federal taxes that are not included in this analysis).



Wyoming Coal Mining Productivity, 1969-2003.

Data source: State Inspector of Mines of Wyoming



Note: Based on 2002 production. Percentages are percent of total mineral revenue attributable to the coal industry in Wyoming.

Sources: WY Dept. of Revenue, U.S. Minerals Management Service, Equality State Almanac, WY Office of State Lands and Investment, Office of Surface Mining, Bureau of Land Management, WY Consenus Revenue Estimating Group, WY State Treauserer.

Federal Royalties: Payments by coal producers to the U.S. government for coal mined on federal leases (about 90% of all Wyoming production).Wyoming receives half of the federal royalties, less an administrative fee assessed by the U.S. Minerals Management Service. Rate: 12.5% of sales value.

Severance Tax: Levied by the state of Wyoming on mining activities in the state. Effective Rate: 7.0% of taxable valuation (surface).

Ad Valorem – Production: Levied by counties on value of production at the mine mouth. Average Rate: 60 mills (6 percent).

Lease Bonus Payments: Fee paid by bidders for the right to purchase leases to mine federal coal ("Bonus payments" are, in effect, signing bonuses). Like production royalties, Wyoming and the federal government split the bonuses 50-50. Rates: Average bid price 1989-2000 was \$0.22 per ton. Recent bonuses are trending higher.

Sales and Use Taxes: Levied by the state and local government on purchases of goods and services. Rate: 4 to 6 percent depending on county.

Abandoned Mine Land: Fees assessed by the U.S. government to pay for the cleanup of abandoned mine lands (AML). Although Wyoming's cleanup has long been completed, the fees continue. Originally, AML fees were designated to be split evenly between the federal government and the individual states where the money is generated. In practice, Wyoming receives only about half its share. In 2003, Wyoming coal producers paid \$129.9 million in AML fees but the state only received \$25.5 million in AML funds (19.6%). Currently, Wyoming's undistributed balance in the AML fund is \$393.4 million.

Ad Valorem – Property: Levied by counties on assessed valuation of physical property, such as mining facilities and equipment. Average Rate: 60 mills (6 percent).

State Royalties and Rents: Similar to federal royalties but for coal mined on state leases. Rates: Royalties, 12.5% (surface) and rents, \$1 to \$4 per acre.

Wyoming Coal Production by County, 2003

Note: All operating mines in Wyoming are surface mines. Idled mines and employees working at idled mines are not included.



Location/Operator	Mine	Employees	Production
Campbell County			
Kennecott Energy Co.	Cordero Rojo Complex	439	36,083,745
Kennecott Energy Co.	Jacobs Ranch	503	35,981,571
Powder River Coal Co.	N. Antelope/Rochelle	793	80,083,444
Powder River Coal Co.	Caballo	248	22,700,000
Powder River Coal Co.	Rawhide	32	3,632,940
RAG Coal West	Belle Ayr	260	17,853,928
RAG Coal West	Eagle Butte	236	24,549,824
Thunder Basin Coal Co. LLC	Black Thunder	581	62,620,297
Triton Coal LLC	Buckskin	196	17,539,156
Triton Coal LLC	North Rochelle	257	23,923,145
Western Fuels of Wyoming Inc.	Dry Fork	61	4,363,683
Wyodak Resources Develop. Corp.	Wyodak	56	4,812,346
	Campbell County Total	3,662	334,144,079
Carbon County			
Arch of Wyoming LLC	Medicine Bow	23	139,038
Arch of Wyoming LLC	Seminoe II	21	136,866
	Carbon County Total	44	275,904
Converse County			
Kennecott Energy Co.	Antelope Coal	267	29,533,072
Glenrock Coal Co.	Dave Johnson	53	Reclamation
	Converse County Total	320	29,533,072
Lincoln County			
Pittsburg & Midway Coal Mining Co.	Kemmerer	270	4,067,346
	Lincoln County Total	270	4,067,346
Sweetwater County			
Black Butte Coal Co.	Black Butte and Lucite Hills	134	2,940,330
Bridger Coal Co.		355	5,604,516
	Sweetwater County Total	489	8,544,862
	Wyoming Total	4,785	376,565,247

Source: Annual Report of the State Inspector of Mines of Wyoming, 2003

Safety

Safety is paramount in the mining industry. Wyoming coal mines have been recognized as some of the safest operations in the United States. The Mine Safety and Health Administration (MSHA) and the National Mining Association recognize the safest surface coal mine in the nation each year with the "Sentinels of Safety" award. A Wyoming mine has won this award 12 times in the last 23 years and has been the recipient of the award for the last five years in a row.



Statistically, Wyoming coal mining had fewer injuries than all of the major sectors of the economy in 2002. The graph at left shows that there were only 0.44 injuries per 100 full-time employees in Wyoming coal mining compared to 2.6 for the mining sector in general and 4.1 for the manufacturing sector.

Source: Bureau of Labor Statistics and the State Inspector of Mines of Wyoming *Finance, Insurance and Real Estate

Reclamation

Reclamation signals the end of mining and the beginning of restoration. All Wyoming coal mines combined disturb about 5,000 new acres per year. Federal and state laws are strictly enforced to ensure that all disturbed land is reclaimed. Specialists at the mines supervise reclamation and ensure compliance with all applicable laws. The mines have to follow pre-approved reclamation plans and some mines have gone to great measures to maintain and even improve land quality, water quality and wildlife habitat. Topsoil that was removed and stored separately from overburden during mining operations is used to restore the original contours of the land as much as possible.

Reclamation goes beyond just restoring contours and reseeding native plant species, Some of the extraordinary steps taken by mining companies during reclamation include: reclaiming wetlands, replacing rock outcroppings for raptor and small mammal use, creating waterways for fish and water fowl use, replacing sage grouse leks (mating grounds) and even relocating prairie dog towns.

Reclaimed areas often provide improvements over the pre-mining conditions on those lands. Wildlife, livestock, sportsmen and recreationists benefit from reclaimed lands after mining operations have been completed.



Mule deer on reclaimed coal mine land

Wyoming Coal Information Committee Members

Arch Coal Inc./Arch of Wyoming: Greg Schaefer	307.464.2330	gschaefer@archcoal.com
Kennecott Energy Company: Shawn Taylor	307.687.6084	shawn.taylor@
Kiewit Mining Group Inc: Bill Hill	307.382.6200	bhill@kmg.kiewit.com
PacificCorp-Pacific Power: Erin Taylor	307.632.2045	erin.taylor@pacificorp.com
Pittsburg & Midway Coal Mining Co.: Nick J. Bettas	307.828.2213	bdoj@chevrontexaco.com
Powder River Coal Co.: Vic Svec	314.342.7768	vsvec@peabodyenergy.com
Foundation Coal Company: Steven Laird	307.687.3240	slaird@foundationcoal.com
Triton Coal Company, LLC: Terry G. Wilkerson	307.686.5494	wilkerso@trition-coal.com
Wyodak Resources Development Corp.: Mark Stege	605.721.2386	mstege@bh-corp.com
Wyoming Mining Association: Marion Loomis	307.635.0331	loomis@vcn.com

Selected References

Foulke, Thomas, Roger Coupal and David Taylor. *Economic Trends in Wyoming's Mineral Sector: Coal*. University of Wyoming Cooperative Extension Service Bulletin B-1116. Laramie, Wyoming. January 2002.

Freme, Fred. U.S. Coal Supply and Demand: 2003 Review. U.S. Department of Energy. Energy Information Administration. http://www.eia.doe.gov/fuelcoal.html. April 2004.

Lyman, Robert M. "Coal Update", *Wyoming Geo-Notes*. Number 79. Wyoming Geological Survey. Laramie, Wyoming. March 2004.

State of Wyoming. Department of Employment. Office of Mine Inspector. Annual Report of the State Inspector of Mines of Wyoming, 2003. Rock Springs, Wyoming. 2003.

United States Department of Commerce. Bureau of Economic Analysis. *Regional Economic Information System*. http://www.bea.gov/bea/regional/statelocal.htm.

United States Department of Interior. Office of Surface Mining. http://www.osmre.gov//osm.htm.



400 ton capacity coal truck



Wyoming Mining Association P.O. Box 866 Cheyenne, Wyoming 82003

www.wma-minelife.com