

Coal extraction data

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 Climate Mitigation Services
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Peabody Energy, USA

www.peabodyenergy.com

St. Louis

yellow column indicates original reported units

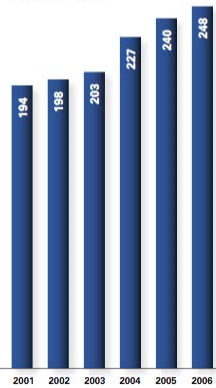
Investor-owned

Production / Extraction data

Year	Sub-Bituminous		Bituminous		Total Coal	
	Gross production	Gross production	Gross production	Gross production	Gross production	Gross production
	Million tons/yr	Million tonnes/yr	Million tons/yr	Million tonnes/yr	Million tons/yr	Million tonnes/yr
	Peabody Coal 1883-2010	Sinclair Coal tk - 1954	Black Beauty Coal 1987-2002			
1944	0.4	Keystone Manual	Company's St Ellen mine only		0.4	0.4
1945	2.0	interpolated			2.0	1.8
1946	3.5	interpolated			3.5	3.2
1947	5.1	interpolated			5.1	4.6
1948	6.6	interpolated			6.6	6.0
1949	8.2	Peabody AnnRpts			8.2	7.4
1950	13.5				13.5	12.2
1951	10.9	Own production only			10.9	9.9
1952	8.2				8.2	7.4
1953	9.4				9.4	8.5
1954	11.5				11.5	10.4
1955	21.8				21.8	19.8
1956	23.1				23.1	21.0
1957	22.2				22.2	20.1
1958	25.8				25.8	23.4
1959	28.7				28.7	26.0
1960	29.6				29.6	26.8
1961	32.8				32.8	29.8
1962	39.2				39.2	35.6
1963	46.5				46.5	42.2
1964	48.8				48.8	44.3
1965	54.1				54.1	49.0
1966	55.9	interpolated			55.9	50.7
1967	57.8	interpolated			57.8	52.4
1968	59.6	Keystone Manual 1969-1989			59.6	54.1
1969	67.9				67.9	61.6
1970	56.0				56.0	50.8
1971	71.6				71.6	65.0
1972	69.9				69.9	63.4
1973	68.1				68.1	61.8
1974	73.1				73.1	66.3
1975	70.5				70.5	64.0
1976	65.4				65.4	59.3
1977	52.5				52.5	47.6
1978	64.4				64.4	58.4
1979	59.1				59.1	53.6
1980	51.7				51.7	46.9
1981	57.7				57.7	52.3
1982	53.4				53.4	48.5
1983	64.4				64.4	58.4
1984	62.0				62.0	56.2
1985	66.7				66.7	60.5
1986	79.0				79.0	75.6
1987	81.5				81.5	77.7
1988	86.7				86.7	83.0
1989	93.3	Peabody AnnRpts			93.3	89.5
1990	104.4	interpolated			104.4	100.0
1991	115.4	interpolated			115.4	110.6
1992	126.5	interpolated			126.5	121.2
1993	137.5	interpolated			137.5	131.7
1994	148.6	Peabody AnnRpts			148.6	140.9
1995	154.2	interpolated			154.2	145.9
1996	159.7	interpolated			159.7	155.1
1997	165.3	interpolated			165.3	161.6
1998	170.8	interpolated			170.8	168.1
1999	176.4	Peabody AnnRpts			176.4	160.0
2000	194.0	Peabody AnnRpts			194.0	176.0
2001	198.0	Peabody AnnRpts			198.0	179.6
2002	203.2	Peabody AnnRpts			203.2	184.3
2003	227.0	Peabody AnnRpts			227.0	205.9
2004	240.0	Peabody AnnRpts			240.0	217.7
2005	248.0	Peabody AnnRpts			248.0	225.0
2006	236.1	Peabody AnnRpts			236.1	214.2
2007	255.5	Peabody AnnRpts			255.5	231.8
2008	243.6	Peabody AnnRpts			243.6	221.0
2009	245.9	Peabody AnnRpts			245.9	223.1
2010						
Total	5,790		153	-	5,888	5,341



Sales Volume (Short Tons in Millions)



Peabody Annual Rpt 2006

Black Beauty	
4.3	Keystone Manual
4.2	Keystone Manual
4.8	interpolated
5.3	interpolated
5.9	interpolated
6.5	interpolated
7.1	interpolated
7.6	EIA stats
6.7	
6.6	
11.3	
12.8	interpolated
14.4	interpolated
16.0	2000-2002 Black Beauty coal prod is NOT included in Peabody total
20.1	
18.9	

coal sold, 1990-2008
 coal sold includes "trading and brokerage"
 "trading and brokerage" totals 25.4 million sh tons

Peabody's Global Operations

Geographic Region/Operation	2006 Sales	Mine Type	Type of Coal	Btu per Pound	Proven & Probable Reserves
Powder River Basin					
Caballo	32.8	S	S	8,600	931
North Antelope Rochelle	88.5	S	S	8,800	1,171
Rawhide	17.1	S	S	8,600	407
Additional Reserves					958
Total	138.4				3,467
Southwest Colorado					
Lee Ranch	8.0	S	S	11,000	270
Twentymile	8.8	U	S	10,800	73
Other Assigned	0.1	S	S	10,600	11
Additional Reserves					686
Total	22.1				1,207
Midwest					
Air Quality	2.2	U	S	10,700	58
Dodge Hill	1.1	U	S	11,100	8
Farmersburg	3.8	S	S	10,300	107
Francisco Surface	2.6	S	S	10,500	6
Francisco Underground	1.1	U	S	10,600	22
Gateway	2.4	U	S	10,300	20
Hightland	3.5	U	S	11,400	88
Miller Creek	1.6	S	S	10,000	30
Patrick, Freedom	4.0	S/U	S	10,800	41
Vermilion Grove	1.7	U	S	10,500	19
Somersville Central	3.6	S	S	10,300	4
Somersville North	2.4	S	S	10,500	7
Somersville South	2.6	S	S	10,000	14
Viking	1.5	S	S	10,700	8
Wildcat Hills Surface/Underground	2.4	S/U	S	10,300	10
Willow Lake	3.5	U	S	11,200	64
Additional Reserves					3,684
Total	39.3				4,170
Appalachia					
Big Mountain	2.6	U	S	12,300	34
Federal	4.9	U	S	13,300	31
Harris	1.5	U	S/M	13,800	8
Kanawha Eagle	2.0	U	S/M	13,100	53
Rocklick	2.2	U	S/M	13,100	13
Wells	3.1	U	S/M	12,800	49
Additional Reserves					387
Total	19.3				555
Australia					
Barababa	0.2	S	S/P	12,200	2
Burton	4.1	S	S/M	12,400	38
Chain Valley	0.3	U	S	11,900	17
Metropolitan	0.5	U	M	12,700	40
Millennium		S	M	12,800	26
North Gonyella(Eaglefield)	2.6	U/S	M	12,800	48
North Wambo	-	U	S/P	13,100	138
Wambo Surface	1.3	S	S	12,400	106
Wilkie Creek	2.0	S	S	10,800	223
Wilpinjong	-	S	S	9,900	165
Total	11.0				603
Total Mining Sales	226.2				10,202
Trading & Brokerage	21.4				
Total Coal Sales	247.6				

Peabody Annual Rpt 2006
 2010 AnnRpt: no heating values rpt'd
 S = steam
 M = metallurgical
 P = pulverized

EIA & NMA data

tons produced, US
119.3
139.0
142.8
142.5
157.1
165.5
140.6
146.1
149.6
156.8

tons produced, world
200.0
212.0
223.7
220.5

Coal Types:	Lignite	0.00%	Thermal coal (on ave)	96.86%	Metallurgical	3.14%	100.00%
1945-2010 total:				5,888	million tons		
Bituminous & Subbitum.							

Peabody

Cell: D11

Comment: Rick Heede:

Coal production by coal mining companies and state-owned enterprises, including subsidiaries of oil and gas companies.

Coal types produced are not ordinarily reported by coal operators (except for metallurgical coal). We distinguish, where possible and reasonably well known, between hard (bituminous and subbituminous) and soft (lignite or peat) coals, especially for the larger companies operating in regions such as Australia and India where soft coals are predominant. Soft coals have lower carbon content per tonne than do hard coals.

Cell: D15

Comment: Rick Heede:

Peabody and Company was founded in 1883 by Francis S. Peabody as a coal sales and delivery service in Chicago. Peabody Coal Company opened its first mine in 1885.

Peabody (then America's eight largest producer) merged with Sinclair Coal Company in 1954, the nation's third largest producer. Kennecott acquired Peabody in 1968, but an anti-trust suit forced its divestiture in 1976 (to Peabody Holding Company, for \$1.1 billion).

For subsequent company history, see peabodyenergy.com and Jay Pederson (editor) (2000) International Directory of Company Histories.

Cell: E15

Comment: Rick Heede:

"Merged" with Peabody in 1954.

Cell: G15

Comment: Rick Heede:

Peabody Energy acquired Black Beauty Coal Company in 2002. Oligopoly Watch, www.oligopolywatch.com/2003/09/21.html

Cell: E18

Comment: Rick Heede:

Keystone Coal Buyers Manual with data for 1945, 1957, and 1958, for production from the "50 Largest Bituminous Coal Mines in the U.S.", p. 421. CMS lists production from one mine only -- St. Ellen in Illinois -- and production from another (Ken, in Kentucky) opened in 1948.

Cell: D23

Comment: Rick Heede:

Coal production data for 1950 through tk from Peabody Coal Company (various) Annual Reports. Some years report both "own production" plus "sales for others" -- this latter ranges from 0.68 million tons in 1953 to 1.3 million tons in 1960 and 3.2 Mt in 1963. We report only Peabody's own production here.

Cell: E25

Comment: Rick Heede:

Peabody reports both tons of coal sold from both its own mines and "for others." CMS reports only sales from "own production."

Cell: D40

Comment: Rick Heede:

Production estimated by interpolation.

Cell: D41

Comment: Rick Heede:

Peabody was bought by Kennecott, but an anti-trust suit forced its divestment in 1976 (purchased for \$1.1 billion by Peabody Holding Company).

Cell: D42

Comment: Rick Heede:

Data for 1969-1993 from Key Stone Coal Industry Manual (various).

Cell: D63

Comment: Rick Heede:

Peabody Annual Rpt 2003, page 4, coal sales in millin tons for 1990, 1995, 2000, and 2003.

Cell: M65

Comment: Rick Heede:

Not added to total sales.

Cell: G67

Comment: Rick Heede:

Black Beauty coal production for 1994-2002 from EIA statistics (various).

Cell: M67

Comment: Rick Heede:

1994-2003 production from EIA (various) Annual Coal Report, Table 10.

Cell: D68

Comment: Rick Heede:

Peabody Annual Rpt 2003, page 4, coal sales in millin tons for 1990, 1995, 2000, and 2003.

Cell: D73

Comment: Rick Heede:

Peabody Annual Rpt 2003, page 4, coal sales in millin tons for 1990, 1995, 2000, and 2003.

Cell: H73

Comment: Rick Heede:

Coal production by Black Beauty, which was acquired by Peabody in 2002, is assumed already counted in Peabody's production totals for 2000 through 2002. Black Beauty production prior to 2000 is added to Peabody, since earlier Peabody AnnRpts could not have anticipated its acquisition.

Cell: D74

Comment: Rick Heede (Feb10):

Peabody Annual Rpt 2006, page 21: tons sold 2001-2006.

Note: the overlap of coal sold in 2004-2006 between the 2006 and 2008 Annual Reports is substantial (227 vs 200.3 million tons for 2004, respectively). The quantitative difference most likely reflects total production for operating mines that have been sold or closed in the intervening years.

Cell: D80

Comment: Rick Heede (Feb10):

Peabody Annual Rpt 2008, page 21: tons sold 2007-2008.

Cell: M81

Comment: Rick Heede:

Peabody (2009) Annual Report 2008, page 18, shows Western U.S. mining of 169.7 million tons, midwestern U.S. mining of 30.7 million tons, Australian mining of 23.7 million tons: total of 224.3 million tons, plus "trading and brokerage" of 31.2 million tons.

In 2007, production totaled 212.0 million tons, and "trading and brokerage" of 24.1 million tons.

"We are the largest private sector coal company in the world, with majority interests in 30 coal operations located throughout all major U.S. coal producing regions, except Appalachia, and international interests in Australia and Venezuela. In 2008, we produced 223.7 million tons of coal and sold 255.5 million tons of coal. Our U.S. sales represented 18% of U.S. coal consumption and were approximately 30% greater than the sales of our closest U.S. competitor." AnnRpt2008, page 20.

"For the year ended December 31, 2008, 82% of our total sales (by volume) were to U.S. electricity generators, 16% were to customers outside the U.S. and 2% were to the U.S. industrial sector." AnnRpt2008, page 20.

Peabody's Venezuelan production is not shown in their production table (reproduced elsewhere on this worksheet), totaling 4.8 million tons (or 25.5 percent thereof). "We own a 25.5% interest in Carbones del Guasare, which owns and operates the Paso Diablo Mine in Venezuela. The Paso Diablo Mine produced approximately 4.8 million tons of steam coal in 2008 for export to the U.S. and Europe." (AnnRpt 2008, p. 21).

CMS concludes that

Cell: D82

Comment: Rick Heede:

AR 2010 pdf pg 21; "tons sold" = western US mining+midwestern US mining+Australian mining+ trading and brokerage; Note inconsistency with NMA Coal Producers Survey which shows 192 and 193.6 respectively.

CMS does not have sufficient data to deduct "trading and brokerage" from total tons coal sold, since Peabody does not report production but total sold for each year. CMS has not assumed that Peabody's "brokerage" of 11.5 percent above 2010 production of 220.5 million tons is applicable to prior years.

Cell: G88

Comment: Rick Heede (Feb10):

More than half of Peabody's coal sales in 2006 came from the company's Powder River Basin in Wyoming (138 of 248 million tons), with a heating value of ~8,800 Btu per pound. Peabody's other mines in Colorado (10,800 Btu/lb), Midwest (10,000 to 11,200 Btu/lb), Appalachia (12,800 to 13,800 Btu/lb), and Australia (10,800 to 12,800 Btu/lb). Bituminous coal ranges from 10,500 to 15,000 Btu/lb, subbituminous from 8,500 to 12,000 Btu/lb (EIA).

For the purposes of assigning carbon content and emissions, CMS classifies Peabody's coal production as "thermal coal," running at ~10,000 Btu/lb (in 2004, and declining due to increasing production of western lower-grade coal). This may under-estimate Peabody's historical emissions insofar as Peabody has for most of its history mined bituminous coals in the east and midwest. Get date of Wyoming operations.

Cell: J88

Comment: Rick Heede:

Based on 2008 production, in which year Peabody mined 7.05 million tons of metallurgical coal (all in Australia) of 224.3 million tons total coal sales, or 3.14 percent.

Cell: O88

Comment: Rick Heede:

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