

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Coal extraction data																
2																	
3	Richard Heede <i>Climate Mitigation Services</i> File started: 11 January 2005 Last modified: November 2011																
4																	
5																	
6																	
7																	
8																	
9	Ruhrkohle AG, Germany yellow column indicates original reported units Investor-owned																
10	www.rag-coalinter.de Essen, Germany																
11	Production / Extraction data																
12	Year	Metallurgical		Hard Coal		Total Coal											
13		Gross production	Gross production	Gross production	Gross production	Gross production	Gross production										
14		Million tonnes/yr	Million tonnes/yr	Million tons/yr	Million tonnes/yr	Million tons/yr	Million tonnes/yr										
15																	
16																	
17	1950																
18	1951																
19	1952																
20	1953																
21	1954																
22	1955																
23	1956																
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74	2007																
75	2008																
76	2009																
77	2010																
78	2011																
79	2012																
80	2013																
81	2014																
82	2015																
83	2016																
84	2017																
85	2018																
86																	
87		Total	5	6	331	631	-	631									
88																	
89																	
90																	
91																	

Coal extraction data

Richard Heede
Climate Mitigation Services
 File started: 11 January 2005
 Last modified: November 2011

Ruhrkohle AG, Germany

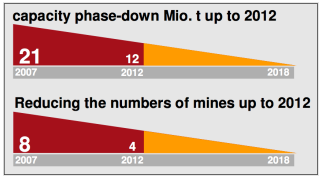
yellow column indicates original reported units

Investor-owned

www.rag-coalinter.de Essen, Germany

Production / Extraction data

Year	Metallurgical		Hard Coal		Total Coal	
	Gross production	Gross production	Gross production	Gross production	Gross production	Gross production
	Million tonnes/yr	Million tonnes/yr	Million tons/yr	Million tonnes/yr	Million tons/yr	Million tonnes/yr



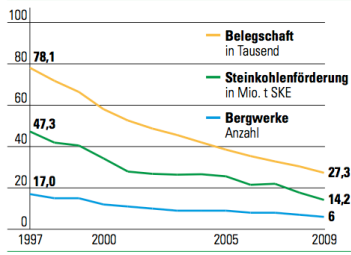
RAG acq Cyprus Amax Coal Co (mid-1999)

RAG incorporated in 1968 as Ruhrkohle AG



120 total German production?

CMS has not traced the divestiture of RAG International assets in 2004.
 It is also unclear whether RAG American Coal acquired some or all of the mining interests acquired by PhelpsDodge in 1999 (Cyprus Amax Minerals Company)



RAG Deutsche Steinkohle (2010) Steinkohle Jahresbericht 2010, page 13.

		Ruhrkohle AG (Germany)		
		50.5	49.4	51
		46.3	46.3	46
		54.4	54.4	54
		47.2	47.2	47
		41.7	41.7	42
		43.3	43.3	43
		39.0	39.0	39
		37.4	37.4	37
		39.0	39.0	39
		59.2	59.2	59
		63.4	63.4	63
		65.5	65.5	65
		71.0	71.0	71
		72.2	72.2	72
		34.0	34.0	34

		RAG American 1999-2003		
		59.2	59.2	59
		63.4	63.4	63
		65.5	65.5	65
		71.0	71.0	71
		72.2	72.2	72
		61.4	61.4	61
		66.3	66.3	66
		71.6	71.6	71
		71.8	71.8	71
		69.4	69.4	69

RAG coal prod'n in Australia	RAG coal prod'n in Venezuela
Metallurgical	Metallurgical ?
million tonnes	million tonnes
pre-2003 Austr/Venz data unavailable	pre-2003 Austr/Venz data unavailable
5.1	5.6

RAG sold their coal mining operations in early 2004

Coal Types:	Lignite:	68.53%	Bituminous	0.00%	Metallurg./Anthrac.	31.47%	100.00%
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Cell: I9**Comment:** Rick Heede:

RAG American is owned y RAG Internaitonal in Essen, Germany. RAG International AnnRpt 2003 does not contain any production data (!) -- except a sparse mention of global sales. RAG International is in the process of selling its Australian, Venezuelan, and North American operating units to Peabody Energy.

www.fundinguniverse.com/company-histories/RAG-AG-Company-History.html:

RAG AG is one of the world's leading hard coal producers and Germany's number one coal producer. Based in Germany, the company consists of an international group of more than 450 companies active in mining, coal trading, engineering, power generation, and chemicals, and has over 220 subsidiaries around the world. RAG's domestic coal and coke mining activities are managed by Deutsche Steinkohle AG. Its international mining activities, including the American coal producer Cyprus Amax Coal and the Australian Burton Coal Mine, are managed by RAG Coal International AG.

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: K23**Comment:** Rick Heede:

RAG (2009) Steinkohle, special issue on Energiesicherheit fur Deutschland, page 8: "Erreichte die Steinkohlenförderung noch 1956 mit über 120 Millionen Tonnen ihren Höhepunkt."

Cell: I28**Comment:** Rick Heede:

Keystone Coal Industry Manual (2000), p. 22: Ruhrkohle AG bought Cyprus Amax and renamed it RAG American Coal Company.

Cell: D52**Comment:** Rick Heede:

RAG sold 34 million tonnes in Germany in 2003. No reported prod'n. RAG AnnRpt, p.15.

Cell: B56**Comment:** Rick Heede:

"The EC formed a Coal Commission to develop a new policy for the German coal industry after 1995. The commission came to the conclusion that the coal industry was a strategic factor in securing Germany's energy supply and that it was not able to survive without government subsidies. However, the industry agreed on reducing the annual output of steam coal from 45 million MT to 40.9 million MT annually."
www.fundinguniverse.com/company-histories/RAG-AG-Company-History.html

Cell: H56**Comment:** Rick Heede:

Ruhrkohle AG Annual Report 1993, p. 29, shows annual production for 1989-1993, in million tonnes. CMS only reports 1989-1991, as its production for 1992 and 1993 is updated (and increased ~10 percent) by the 1996 AnnRpt -- presumably due to acquiring other coal mining interests.

The company also reports coke production and sales of 4.9 million tonnes; CMS assumes this coke production is included in total coal production (i.e., uses its own coal in the coking plants) and is not added to Metallurgical coal.

Cell: H59**Comment:** Rick Heede:

Ruhrkohle AG Annual Report 1996, p. 30, shows annual production for 1992-1996. RAG reports lower production and the closing of mines and coking batteries.

Cell: O62**Comment:** Rick Heede:

"In July 2004, RAG Coal Holding Company became Foundation Coal Corp., formed by a private equity consortium consisting of First Reserve Corporation, The Blackstone Group, and American Metals & Coal International (AMCI). Foundation then began trading publicly in December 2004."
National Mining Association (2005) Coal Producer Survey 2004, page 3.

Cell: B63**Comment:** Rick Heede:

"In 1996 RAG Coal International was founded to manage all RAG's coal activities abroad, including the exploration and development of new coal reservoirs; the planning, development, and operation of coal mines and processing facilities; and the manufacture of mining equipment. In the fall of 1999, when RAG bought 95 percent of an Australian coal mine, Burton Coal Joint Venture, and the American firm Cyprus Amax Coal Company based in Denver, Colorado, it was suddenly the world's second largest private coal producer. Cyprus-Amax included seven coal mines and two strip mines in Wyoming and Colorado. In 1999 RAG Coal International generated an output of 65 to 70 million tons of coal in 17 coal mines, totaling almost \$1 billion in sales.

Cell: G63**Comment:** Rick Heede:

"In July 2004, RAG Coal Holding Company became Foundation Coal Corp., formed by a private equity consortium consisting of First Reserve Corporation, The Blackstone Group, and American Metals & Coal International (AMCI). Foundation then began trading publicly in December 2004."
National Mining Association (2005) Coal Producer Survey 2004, page 3.

Cell: B65**Comment:** Rick Heede:

Cyprus Amax Minerals will sell its remaining US coal businesses to RAG International Mining GmbH, Germany's largest coal producer, for about \$1.1 billion in cash and assumed debt. Cyprus Amax was the fifth-- largest producer of US coal 1998. The company mined 62 Mt (68 million st) from its properties in Pennsylvania, Wyoming, Utah, Colorado and Illinois. Coal sales reached about \$800 million. RAG owns coal mines in West Virginia. But the company is expanding outside Germany as its coal production there declines.

Cell: B66**Comment:** Rick Heede:

1999: RAG acquires 95 percent of Burton Coal Joint Venture and Cyprus Amax Coal Company.

Cell: H66**Comment:** Rick Heede:

RAG Aktiengesellschaft Annual Report 1999, p. 11. RAG acquired Cyprus Amax Coal in the United States in mid-1999.

Cell: H67**Comment:** Rick Heede:

CMS does not have RAG Annual Reports for 2000-2003. RAG sold all of its producing properties in 2004. CMS assumes that RAG operated its DSK mines in Germany, and retained ownership of Burton in Australia. CMS interpolates between 1999 and 2003.

Cell: D70**Comment:** Rick Heede:

RAG International AnnRpt 2003, p. 19, shows Australian coal production at "more than 5 million tonnes in fiscal 2003" of mostly coking coal bound for China and other Asian markets. It is unclear whether the 4 million tonnes from the Burton Mine in Queensland is included in the above figure or not. No data for previous years or growth percentages are given in the RAG AnnRpt. Nor are annual reports for any previous years available on the RAG website.

Cell: E70**Comment:** Rick Heede:

RAG International AnnRpt 2003, p. 19, shows coal production in Venezuela (RAG has a 25 percent interest in the Paso Diablo open-cast mine) of "5.6 million tonnes." No data for previous years are shown.

Cell: H70**Comment:** Rick Heede:

RAG sold 34 million tonnes in Germany in 2003. No reported prod'n. RAG AnnRpt, p.15.

Cell: B71

Comment: Rick Heede:

"Within a few weeks RAG Coal International AG has cleared the way for the sale of all its foreign mining operations. RAG Coal International has signed a memorandum of understanding for the sale of RAG American Coal Holding, Inc. which provides for a period of exclusive negotiations with a U.S.-based private equity consortium consisting of First Reserve Corporation, The Blackstone Group and American Metals & Coal International (AMCI)."
www.encyclopedia.com/doc/1G1-113310182.html

Cell: G71

Comment: Rick Heede:

"Until the close of 2003 RAG Coal International was among the leading mining and trading companies on the international coal market with mines in the USA, Australia and Venezuela. As a result of the restructuring of RAG the company's mining activities have been sold. Today, RAG Coal International is the umbrella for all national and international activities of RAG having to do with coal." Source: www.rag-coalinter.de/index_e.shtml

Cell: P89

Comment: Rick Heede:

Left blank.

Cell: P90

Comment: Rick Heede:

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