



2008 Minerals Yearbook

BOSNIA AND HERZEGOVINA

THE MINERAL INDUSTRY OF BOSNIA AND HERZEGOVINA

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According to its Constitution, Bosnia and Herzegovina comprises two distinct entities—the Federation of Bosnia and Herzegovina (the Federation) and the Republika Srpska (RS). Establishment of the two entities was a result of the Dayton Peace Agreement signed in December 1995, which ended the war fought in Bosnia between 1992 and 1995. Bosnia and Herzegovina was not a major world or regional producer of minerals or mineral products.

Minerals in the National Economy

Bosnia and Herzegovina's gross domestic product (GDP) increased by 5.4% compared with the GDP in 2007. The Federation produced about 63% of the total GDP. The value of mining and quarrying output in all of Bosnia and Herzegovina increased by 12.4% but accounted for only about 2.1% of the GDP. In the Federation, the total value of mining and quarrying production increased by 5.1%, and in the RS, the value of mining and quarrying production increased by 20.7% compared with that of 2007. In both the Federation and the RS, the increase in the value of mining and quarrying production was the result of increased value of nonmetallic mineral commodities, in particular brown coal and lignite (Agency for Statistics of Bosnia and Herzegovina, 2009; Federation of Bosnia and Herzegovina Federal Office of Statistics, 2009, p. 8; Republika Srpska Institute of Statistics, 2009).

Production

In 2008, Bosnia and Herzegovina increased production of pig iron by an estimated 305%, zinc content of concentrate by 150%, lead concentrate by 29%, bauxite by about 17%, and crude steel by 14% compared with production in 2007.

For industrial minerals, there were significant increases in the production of ecaussine and other calcareous stone (87%), construction sand (79%), crushed stone (51%), limestone (47%), barite and sodium bicarbonate (46% each), kaolin (38%), and salt and cement (10% each) compared with production in 2007. Production decreased significantly for gravel (18%), slate (15%), and dolomite (13%). With respect to mineral fuels, production of petroleum refinery products increased by about 866% and production of brown coal and lignite increased by 15% compared with that of 2007 (table 1).

Structure of the Mineral Industry

Table 2 is a list of the major mineral industry facilities.

Commodity Review

Metals

Bauxite and Alumina and Aluminum.—In August, the alumina plant at Zvornik laid off 245 workers to reduce costs. Electricity costs had hurt Birac's ability to operate profitably and were cited as a major reason for the layoffs. The company had examined the possibilities of building its own powerplant or signing long-term electricity purchase contracts to reduce costs, but these options had been rejected.

In 2007, a consortium led by Glencore International AG of Switzerland was selected as the winning bidder for the 88% share of primary aluminum producer Aluminij d.d. Mostar (Aluminij), which was owned by the Government of Bosnia and Herzegovina. The sale of the shares was delayed by the consortium's condition that the Government guarantee a reduced rate supply of electricity. The issue remained a problem throughout 2008 and the sale had yet to be made final as of yearend. In December, Aluminij announced that it would file a lawsuit against the Regulatory Commission for Electricity in the Federation of Bosnia and Herzegovina (FERK) because it had been forced to purchase electricity at a higher price than other large industrial consumers (Jelin, 2008; Sito-Sucic, 2008; Aluminij d.d. Mostar, 2009).

Iron and Steel.—The estimated 305% increase in pig iron production in 2008 could be the result of major investments, which reportedly included a new blast furnace, made to ArcelorMittal's steelworks at Zenica during the year (table 1). It is also possible that the increase is because production in previous years was under estimated (Woodard, 2008).

Mineral Fuels

The major increase in the production of refined petroleum products was the result of the restarting of production at the oil refinery at Bosanski Brod on November 27 after about 3 years of inactivity. Russian state-owned company JSC Zarubezhneft purchased the Bosanski Brod refinery in February 2007 and invested approximately \$60 million¹ to restart production. The crude oil processing capacity was initially 1.2 million metric tons per year (Mt/yr), and Zarubezhneft intended to make further investments to increase the processing capacity to 4.2 Mt/yr (JSC Zarubezhneft, 2008).

¹Where necessary, values have been converted from European Union euros (€) to U.S. dollars at the rate of €0.68=US\$1.00.

Outlook

Bosnia and Herzegovina's mineral industry will probably continue to be a relatively small producer of minerals and mineral products, and aluminum, petroleum products, and steel will be important export products for the country.

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TABLE 1
BOSNIA AND HERZEGOVINA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2004	2005	2006	2007	2008	
METALS						
Alumina, metallurgical grade	356,844	447,260	393,580	303,799	294,455	
Aluminum, ingot, primary and secondary	121,296	131,232	136,190	147,193	155,903	
Bauxite	916,928	1,031,618	854,047	866,933	1,018,333	
Iron and steel:						
Ore and concentrate:						
Gross weight	280,596	3,176,748	3,439,587	2,943,963	2,667,359	
Fe content ^c	140,000	1,500,000	1,450,000	1,240,000	1,120,000	
Metal:						
Ferroalloys, ferrosilicon	19,820	15,000 ^e	14,747	13,305	14,216	
Pig iron ^e	60,000	60,000	60,000	60,000	243,000	
Crude steel	75,000 ^f	289,000 ^f	490,000 ^f	533,000 ^f	608,000	
Lead:						
Concentrate, gross weight	1,668	2,309	1,152	4,677	6,029	
Metal, smelter, primary and secondary	35	79	33	1	46	
Manganese ore:^c						
Gross weight	2,000	2,000	2,000	2,000	2,000	
Mn content	500	500	500	500	500	
Zinc concentrate, Zn content	1,000	3,000	1,000	2,000	5,000	
INDUSTRIAL MINERALS						
Barite concentrate	65 ^e	160	190	37	54	
Cement	1,044,944	1,025,540	1,226,319	1,283,357	1,406,373	
Clays:						
Bentonite	24,353	24,882	24,645	32,912	30,504	
Ceramic clay, crude ^e	16,784 ³	14,553 ³	15,000	15,000	15,000	
Kaolin, crude	13,500 ^f	14,500 ^f	69,643 ^f	188,033 ^f	259,325	
Dolomite, crude	223,378	128,639	109,693	154,518	134,991	
Gypsum and anhydrite	139,520	152,939	131,936	154,294	150,039	
Lime	146,000	186,000	218,121	237,190	215,787	
Nitrogen, N content of ammonia ^e	500 ^f	500	500	500	500	
Silica sand	190,315	119,831	711,399	671,336	702,018	
Salt, all sources	260,500	392,240	416,305	502,487	555,122	
Sand and gravel:						
Gravel	614,222	1,471,857	1,593,553	1,790,913	1,475,433	
Sand, construction	90,581	574,490	20,835	98,267	175,527	
Sodium compounds:						
Soda ash ^e	11,000	11,000	11,000	11,000	11,000	
Caustic soda	3,916	11,424	12,156	12,200 ^e	12,200 ^e	
Sodium bicarbonate	500 ^e	9,616	9,288	13,287	19,441	
Stone:						
Dimension:						
Marble and travertine	2,500 ^e	2,552	2,664	6,049	5,785	
Ecaussine and other calcareous stone	149,241	88,364	145,666	96,943	181,493	
Granite	19,494	18,181	20,741	24,512	23,764	
Porphyry, basalt and other stone	10,755	27,709	12,196	188,822	188,410	
Slate	1,864	3,092	5,735	2,572	2,181	
Crushed	2,818,600 ^f	3,049,920 ^f	3,035,727 ^f	2,901,891 ^f	4,370,598	
Limestone, crushed and powdered	1,379,146	1,343,896	1,724,879	1,639,430	2,403,270	
MINERAL FUELS AND RELATED MATERIALS						
Brown coal and lignite	thousand metric tons	8,896	9,144	9,965	9,765	11,244
Coke		220,800	456,221	468,443	592,471	576,785
Petroleum refinery products ^{e,4}	42-gallon barrels	880,000	878,000	86,400	91,000	879,000

^eEstimated; estimated data are rounded to no more than three significant digits. ^fRevised. -- Zero.

¹Table includes data available through January 20, 2010.

²In addition to commodities listed, calcined gypsum, common clay, magnesite, and steel semimanufactures are also believed to have been produced, but available information is inadequate to make reliable estimates of output.

³Reported figure.

⁴Figures were converted to barrels from production in metric tons, which was reported as the following: 2004—110,000 (estimated); 2005—109,782; 2006—10,797; 2007—11,379; and 2008—109,879.

TABLE 2
BOSNIA AND HERZEGOVINA: STRUCTURE OF THE MINERAL INDUSTRY IN 2008

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Alumina	Alumina Factory Birac a.d. (Ukio Banco Investment Group)	Plant at Zvornik	600
Aluminum	Aluminij d.d. Mostar	Smelter at Mostar	150
Bauxite	A.D. Boksit Milici	Mine at Milici	1,500
Do.	Rudnici Boksita Jajce d.d.	Mine at Jajce	NA
Cement	Tvornica Cementa Kakanj d.d. (Heidelberg)	Plant at Kakanj	NA
Do.	D.D. Fabrika Cementa Lukavac	Plant in Lukavac	NA
Coal:			
Brown	RMU Banovici	Opencast mines at Cubric, Grivice, and Turija; underground mines at Omazici and Separacija	NA
Do.	Zenica Group	Stara Jama, Raspotocje, and Stranjani Mines at Zenica	NA
Do.	Durdevik Group	Potocari and Visca II opencast mines and Durdevik underground mine south of Zivinice	NA
Do.	Kakanj Group	Vrtliste opencast mine at Kakanj	NA
	do.	Haljinic underground mine about 5 kilometers southeast of Kakanj	NA
Do.	Breza Group	Sretno and Kamenice underground mines 20 kilometers northwest of Sarajevo	NA
Do.	Abid Lolic Group	Grahovcici underground mine 10 kilometers west of Zenica	NA
Do.	Tusnica Mine	Drage opencast mine at Livno	NA
Do.	Elektrokrajina a.d.	Opencast mine at Ugljevik	NA
Lignite	Kreka Group	Opencast mine at Dubrave	NA
Do.	do.	Opencast mine at Sikulje	NA
Do.	do.	Underground mines at Mramor, about 5 kilometers northeast of Lukavac, and Bukinje, located between Tuzla and Lukavac	NA
Do.	EFT Rudnik I Termoelektrana Stanari d.o.o. (EFT Group)	Stanari opencast mine 20 kilometers west of Dobož	NA
Do.	Elektrokrajina a.d.	Opencast mine at Gacko	NA
Do.	Gracanica Group	Dimnjace opencast mine at Gornji Vakuf-Uskoplje	NA
Do.	Tusnica Mine	Opencast mine at Livno	NA
Coke	Global Ispat Koksa Industrija doo Lukavac	Lukavac	700
Do.	ArcelorMittal Zenica (ArcelorMittal, 92%)	Plant at Zenica	680
Ferrous alloys, ferrosilicon	Elktrobosna, Elektrohemijska i Elektrotermijska Industrija	Plant at Jajce	NA
Do.	B.S.I. d.o.o. (Metalleghe S.p.a.)	do.	15
Iron ore	ArcelorMittal Prijedor (ArcelorMittal, 51%)	Jezero and Buvac open pit mines at Ljubija and mine at Omarsk	NA
Lead-zinc ore	NA	Mine and mill at Srebrenica	NA
Manganese ore	Rudnik Mangana Buzim (LM IMPEX)	Mine and concentrator at Buzim	NA
Petroleum, refined	Zarubezhneft (through its Neftegazinkor unit)	Oil refinery at Bosanski Brod	1,200
Do.	do.	Oil refinery at Modrica	NA
Pig iron	ArcelorMittal Zenica (ArcelorMittal, 92%)	Blast furnace at Zenica	1,200
Salt, rock	Hemijski Kombinat "Sodaso," Rudnik Soli i Solni Bunari	Mines at Tusanj	NA
Do.	do.	Production from brine at Tuzla, BiH	NA
Steel, crude	ArcelorMittal Zenica (ArcelorMittal, 92%)	Plant at Zenica	1,000
Do.	Jelsingrad Livar Steel Foundry a.d.	Banja Luka	NA

Do., do. Ditto. NA Not available.