



2011 Minerals Yearbook

SERBIA

THE MINERAL INDUSTRY OF SERBIA

By Mark Brininstool

Serbia was a modest producer of mineral commodities, and its output was not significant in terms of world production. Within the Southern Balkans, the country was a significant producer of such metals as copper, iron and steel, and refined petroleum products but struggled to maintain production at its copper and steel facilities because of difficult economic conditions and the need for capital investments. The Serbian Province of Kosovo declared its independence from the Republic of Serbia in February 2008. The U.S. Government formally recognized Kosovo's independence and, therefore, Kosovo has been included as a separate chapter in the Minerals Yearbook since 2008. Consequently, this report contains economic and mineral production data only for Serbia.

Minerals in the National Economy

In 2011, Serbia's gross domestic product (GDP) increased by 1.6%. In 2010 (the most recent year for which data were available), mining and quarrying made up about 1.4% of the GDP (at previous year prices), and the mining of coal and peat made up about 77% of the total value of mining and quarrying. The value of exports of mining and quarrying products in 2010 (the most recent year for which data were available) was about \$44 million, and the value of imports of mining and quarrying products was about \$2.2 billion. The large trade deficit in the mining and quarrying sector was mainly owing to imports of crude petroleum and gas products (including service activities), which were valued at about \$1.8 billion in 2010 (Statistical Office of the Republic of Serbia, 2011a; 2011b, p. 124, 126, 287–288, 296).

Production

Production of copper contained in concentrate increased by 54% and refined copper, by 40%, owing to new investments in mining equipment by Serbia's only copper producer, Rudarsko Topionicki Bazen Bor (RTB Bor). Natural gas and crude oil output increased by 44% and 18%, respectively, mainly because Naftna Industrija Srbije a.d. (NIS) made investments to repair operating oil wells and to reactivate idle oil wells. Salt output decreased by 25% (table 1; Rudarsko Topionicki Bazen Bor, 2011; Naftna Industrija Srbije a.d., 2012, p. 64).

Structure of the Mineral Industry

On January 31, 2012, United States Steel Corp. (U.S. Steel) sold its steel plant in Smederevo to the Government of Serbia for \$1 plus \$40 million in payments to U.S. Steel Kosice of Slovakia for raw materials and services already provided. U.S. Steel said that it sold the Smederevo plant to focus its attention and capital on other areas of the company. In September 2011, Lafarge S.A. of France increased its ownership in the cement plant Beocinska Fabrika Cementa to 100% from 50%. The additional shares were purchased from

Asamer Holding AG and the Wietersdorfer Group, both which were headquartered in Austria. Table 2 is a list of Serbia's major mineral industry facilities (Foreign Investors Council, 2011; United States Steel Corp., 2012, p. 4, 55).

Commodity Review

Metals

Copper.—The Government of Serbia remained in control of RTB Bor after unsuccessful attempts to privatize the company in 2007 and 2008 and to find a strategic partner in 2009. RTB Bor was the only producer of copper in Serbia. Having been unable to find an outside investor for RTB Bor, the Government of Serbia looked for ways to invest in the company to make it a profitable operation. The company began purchasing new loading and hauling equipment beginning in 2008, with the majority of these investments going to the mine at Veliki Krivelj, which was responsible for more than 75% of RTB Bor's mine output in 2011. In June 2010, RTB Bor signed a \$210.7 million deal with SNC-Lavalin Group Inc. of Canada for the construction of a new copper smelter and a sulfuric acid plant. In January 2011, SNC Lavalin contracted Outotec Oyj of Finland to design and deliver a smelter with a production capacity of 80,000 metric tons per year of anodes. The project was scheduled to be completed by the end of 2013 (SNC-Lavalin Group Inc., 2010; Vasovic, 2010; Pantovic, Stojadinovic, and Zikic, 2011).

Iron and Steel.—U.S. Steel Serbia d.o.o. (a subsidiary of U.S. Steel) was the only steel producer in Serbia; it had 2.4 million metric tons (Mt) of annual crude steel production capacity and employed about 5,500 workers. The company had struggled financially since the beginning of the world economic crisis in 2008 and the accompanying reduction in demand for steel products, and in 2011, it suffered losses of about \$200 million. Crude steel production in Serbia decreased to about 72 metric tons (t) in December 2011 from about 150,000 t in January 2011, and in January 2012, U.S. Steel Serbia initiated a 4-day work week to cut production and operating costs further. A dependence on purchased coke, an unfavorable product mix, and competition from lower-priced imports were also cited as factors that prevented the plant from operating profitably (Vasovic, 2011a; James, 2012; Thomson Reuters, 2012; World Steel Association, 2012).

As a result of the difficult operating environment, on January 31, 2012, U.S. Steel sold U.S. Steel Serbia to the Government of Serbia. The Government was seeking to prevent any job losses and intended to find a new buyer for the plant, which accounted for about 14% of Serbia's total exports (Vasovic, 2011a, b; United States Steel Corp., 2012, p. 4, 55).

Industrial Minerals

Lithium.—Rio Tinto plc of the United Kingdom reported that its lithium project at Jadar had 125.3 Mt of inferred resources of ore containing 1.8% lithium oxide and 16.2 Mt of inferred resources of borates and was reportedly one of the largest lithium deposits in the world. The project was in the prefeasibility stage, and the reported inferred resources were for those in the lowest of the three vertically stacked zones of the deposit. Rio Tinto estimated that, if developed, the project could begin production within 6 years and that annual production could account for more than 20% of global demand for lithium (Rio Tinto plc, 2011, p. 1–2).

Mineral Fuels

Natural Gas and Petroleum.—Serbia was heavily dependent on imports from Russia to meet its demand for crude petroleum and natural gas. NIS was Serbia's only producer of natural gas, petroleum, and refined petroleum products. NIS was owned 56.15% by JSC Gazprom Neft of Russia and 29.87% by the Government of the Republic of Serbia. In 2010 (the most recent year for which data were available), about \$1.1 billion of crude petroleum and about \$744 million of natural gas were imported from Russia; the total volume of imports from Russia accounted for about 87% of all crude petroleum and 90% of all natural gas imported into Serbia (Statistical Office of the Republic of Serbia, 2011b, p. 296; Naftna Industrija Srbije a.d., 2012, p. 83).

Outlook

Mineral production in Serbia is expected to remain small by world standards. Output of copper could increase if investments in RTB Bor are successful, but steel production will likely decrease in 2012 as the Government searches for a new owner for the steel plant at Smederevo. In the long term, development of the lithium deposit in Jadar could make Serbia a globally significant producer of this mineral.

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TABLE 1
SERBIA: PRODUCTION OF MINERAL COMMODITIES^{1,2}

(Metric tons unless otherwise specified)

Commodity ³	2007	2008	2009	2010	2011
METALS					
Aluminum ingot, including alloys, secondary	3,669	1,882	1,789	1,739 ^r	1,740 ^e
Copper:					
Mine and concentrator output:					
Ore:					
Gross weight thousand metric tons	6,867	7,746	9,896	10,665 ^r	12,000 ^e
Cu content of ore	17,200 ^e	21,900	24,400	28,400	33,600 ^e
Concentrate, Cu content ^e	16,500	18,800	19,000	19,000	29,300
Metal: ^e					
Blister and anodes:					
Primary	30,200	31,900	27,000 ^r	20,000 ^r	31,900
Secondary	1,000	1,000	1,000	1,000	1,000
Total	31,200	32,900	28,000 ^r	21,000 ^r	32,900
Refined: ^e					
Primary	30,600	32,800	27,000 ^r	20,000 ^r	28,300
Secondary	1,000	1,000	1,000	1,000	1,000
Total	31,600	33,800	28,000 ^r	21,000 ^r	29,300
Gold, refined kilograms	500 ^e	712	452	356	360 ^e
Iron and steel, metal:					
Pig iron	1,485,000	1,582,000	1,006,000	1,265,000	1,226,000
Crude steel	1,478,000	1,662,000	1,097,000	1,254,000	1,324,000
Semimanufactures	2,431,380	2,393,430	1,556,017	2,127,960 ^r	2,130,000 ^e
Lead:					
Ore:					
Gross weight (Pb-Zn ore)	198,000	202,000	225,000	219,000 ^r	220,000 ^e
Pb content ^e	1,600	1,600	1,800	1,800	1,800
Metal, including alloys, secondary, refined ^e	1,273 ⁴	929 ⁴	1,000 ^r	1,000 ^r	1,000
Magnesium, metal, secondary ^e	2,000	1,500	1,500	1,500	1,500
Platinum-group metals:					
Palladium kilograms	15 ^e	70	38	22	20 ^e
Platinum do.	2 ^e	--	12	--	-- ^e
Selenium do.	7,500 ^e	16,827	19,075	10,592	11,000 ^e
Silver, mine output, Ag content ^e do.	2,300	2,300	2,500	4,820 ⁴	5,200
Zinc, Zn content of concentrate ^e	1,000	1,000	1,000	1,000	1,000
INDUSTRIAL MINERALS					
Cement thousand metric tons	2,677	2,843	2,232	2,130	2,095
Gypsum, crude ^e	45,000	45,000	45,000	45,000	45,000
Lime thousand metric tons	320	292	251	239	274
Nitrogen, N content of ammonia ^e	85,000	47,000	53,000	84,000 ^r	84,000
Salt, all sources	30,023	30,115	28,783	30,816	23,144
Sand and gravel, excluding glass sand ^e thousand cubic meters	8,730 ^r	8,670 ^r	5,790 ^r	6,950 ^r	7,000
MINERAL FUELS AND RELATED MATERIALS					
Coal:					
Bituminous thousand metric tons	66	66	69	108	134
Brown coal and lignite do.	37,007	38,519	38,828	38,490	41,440
Total do.	37,073	38,585	38,897	38,598	41,574
Natural gas, gross production million cubic meters	274	282	283	427	616
Petroleum: ^{e,5}					
Crude thousand 42-gallon barrels	4,740	4,720	4,920	6,420	7,570
Refinery products do.	18,900	18,700	16,700	16,000 ^r	15,000 ^e

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

¹Table includes data for Serbia only. No data are included for Kosovo, which declared its independence from the Republic of Serbia in February 2008.

²Table includes data available through September 6, 2012.

³In addition to the commodities listed, other mineral commodities may have been produced, but available information is inadequate to make reliable estimates of output.

⁴Reported figure.

⁵Data were converted to barrels from thousand metric tons and were reported as follows: for crude production, 2007—639; 2008—636; 2009—663; 2010—865; and 2011—1,020; for petroleum products, 2007—2,502; 2008—2,462; 2009—2,227; 2010—2,130 (revised); and 2011—2,000 (estimated).

TABLE 2
SERBIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2011

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity holders	Location of main facilities	Annual capacity	
Antimony:				
Ores and concentrates	Farmakom M.B.	Mines and mills near Zajaca	NA	
Metal	do.	Smelter at Zajaca	NA	
Cement	Beocinska Fabrika Cementa (Lafarge S.A., 100%)	Plant at Beocin	2,000	
Do.	Holcim (Srbija) a.d. (Holcim Ltd., 100%)	Plant at Popovac	1,400	
Do.	Cementara Kosjeric a.d. (Titan Group, 100%)	Plant at Kosjeric	750	
Coal:				
Bituminous	JP PEU Resavica	Ibarski Rudnici Mines near Baljevac and Vrska Cuka Mines	70 ^e	
Brown coal	do.	Underground mines near Resavica, Bogdinac, Bogovina, Krepoljin, and Stavalj	400 ^e	
Lignite	MB Kolubara Ltd. (Electric Power Industry of Serbia)	Opencast mines: Field B, Field D, Veliki Crljeni, and Tamnava West near Vreoci	31,000	
Do.	TPPs-OCMs Kostolac Ltd. (Electric Power Industry of Serbia)	Opencast mine Drmno near Kostolac	8,500	
Do.	JP PEU Resavica	Underground mine at Lubnica	60 ^e	
Copper:				
Metal	Rudarsko Topionicki Bazen Bor (RTB Bor) (Government owned)	Smelter at Bor	170	
Do.	do.	Electrolytic refinery at Bor	170	
Mine production, Cu content of concentrate	do.	Mine and mill "Jama" at Bor	8	
Do.	do.	Mine and mill at Majdanpek	65	
Do.	do.	Mine and mill at Veliki Krivelj	35	
Lead-zinc ore	Contango d.o.o.	Mine and mill at Rudnik	250 ^e	
Do.	NA	Grot Mine near Vranje	300 ^e	
Do.	Farmakom M.B.	Mines at Rajiceva Gora, Ravnaja, and Veliki Cip	350 ^e	
Do.	Mineco Group	Mine at Veliki Majdan, near Ljubovija	60 ^e	
Lead, metal, secondary	Farmakom M.B.	Smelter at Zajaca	NA	
Lime	Jelen Do a.d. (Nexe Grupa)	Plant in Jelen Dol, west of Cacak	90	
Do.	U.S. Steel Serbia d.o.o. (United States Steel Corp.)	Plant at Kucevo	NA	
Do.	Ravnaja AD	Plant at Mali Zvornik	NA	
Magnesite, concentrate	Magnohrom d.o.o.	Mines near Kraljevo	NA	
Magnesium:				
Mine (byproduct of dolomite mining)	MG Serbien d.o.o.	Bela Stena, near Baljevac	NA	
Metal:				
Primary	do.	do.	8,500	
Secondary	do.	do.	12,000	
Natural gas	million cubic meters	Naftna Industrija Srbije a.d. (NIS) (JSC Gazprom Neft, 56.15%, and Government, 29.87%)	Gas is produced from wells located throughout northern Serbia	620 ^e
Petroleum:				
Crude	thousand 42-gallon barrels per day	do.	Crude petroleum produced mainly in northeastern Serbia	21 ^e
Refined	do.	do.	Refinery at Pancevo	4,800
Do.	do.	do.	Refinery at Novi Sad	2,500
Pig iron	do.	U.S. Steel Serbia d.o.o. (United States Steel Corp.) ¹	Two blast furnaces at Smederevo	NA
Steel, crude	do.	do.	Plant at Smederevo	2,400
Zinc, metal	do.	Hemijska Industrija Zorka	Electrolytic plant at Sabac	30

^eEstimated. Do., do. Ditto. NA Not available

¹The pig iron and steel plant at Smederevo was sold to the Serbian Government by U.S. Steel Serbia d.o.o. on January 31, 2012, for \$1 plus \$40 million in payments to U.S. Steel Kosice of Slovakia for raw materials and services already provided. After the sale, the plant's name was changed to Zelezara Smederevo d.o.o.