

# 2007 Minerals Yearbook

**SLOVAKIA** 

## THE MINERAL INDUSTRY OF SLOVAKIA

### By Mark Brininstool

In 2007, Slovakia continued to produce a modest range of mineral products but was not an important world producer of any minerals. Aluminum and steel were two of Slovakia's most significant metal products, and industrial minerals, such as cement, dolomite, lime, and magnesite, were also produced. Brown coal, including lignite, along with small amounts of natural gas and petroleum were produced, but Slovakia is dependent on foreign imports of gas and petroleum to meet its domestic demand for mineral fuels.

#### Minerals in the National Economy

In 2007, Slovakia's real gross domestic product (GDP) increased by 10.4%. Industrial production grew by 12.8%, mining and quarrying grew by 25.9%, and manufacturing grew by 15.3% (Statistical Office of the Slovak Republic, 2008a, b).

According to the Ministry of Economy of the Slovak Republic, mineral fuels were the most important mineral trade goods in terms of value in 2007; imports were valued at \$6,515 million¹ and exports were valued at \$2,802 million. Imports of mineral fuels were down by 9.4% compared with imports in 2006 and made up about 11.2% of the total value of imports in 2007. Iron and steel imports were valued at \$2,804 million (which was an increase of 27.4% compared with those of 2006) and exports were valued at \$4,071 million (a 2.5% increase); imports of aluminum and articles thereof were valued at \$589 million (a 7.5% increase) and exports were valued at \$929 million (a 0.4% increase); and imports of ores, slag, and ash were valued at \$504 million (a 0.5% increase) and exports were valued at \$26 million (a 12.8% increase) (Ministry of Economy of the Slovak Republic, 2009).

#### **Production**

#### Metals

Aluminum.—All primary aluminum production in Slovakia came from Slovalco a.s., which increased production by about 6% compared with production in 2006. Slovalco sold a total of 185,314 metric tons (t) of finished products, of which 76.9% was exported (Slovalco a.s., 2008, p. 13). Alcan Inc. opened Alcan Extruded Products (a \$35 million aluminum extrusion plant in Levice), which would likely lead to increased domestic aluminum consumption. The plant was expected to reach planned capacity of 25,000 metric tons per year of extrusion products within 3 to 4 years (Alcan Inc., 2007; Slovak Spectator, The, 2008).

**Copper.**—In 2007, copper smelter production decreased by 4.5%, but Kovohuty a.s. (Slovakia's only copper smelter) planned to expand production capacity to increase supplies of copper anodes to the Montanwerke Brixlegg copper refinery in Salzburg, Austria. Kovohuty and Montanwerke Brixlegg were

<sup>1</sup>Where necessary, values have been converted from Slovakian koruna (SK) to U.S. dollars (US\$) at the rate of SK 24.74=US\$1.00.

owned by A-TEC Industries AG, which was headquartered in Vienna, Austria (A-TEC Industries AG, 2008, p. 10, 12).

**Gold.**—Multiple gold exploration projects in Slovakia continued in 2007. Tournigan Energy Ltd. continued exploration work in central Slovakia near Kremnica, and EMED Mining explored near Biely Vrch near the Czech and Polish borders. Tournigan also explored for uranium near Kuriskova and Novoveska Huta in eastern Slovakia, and, in 2007, the company doubled its resource estimates at the Kuriskova site to 16,329 t (36 million pounds) of U<sub>3</sub>0<sub>8</sub> (Tournigan Energy Ltd., 2008, p. 3; EMED Mining, 2009).

Iron and Steel.—In 2007, Slovakia produced 4.8 million metric tons (Mt) of crude steel and a reported 3.627 Mt of iron ore. Before 2007, the Government of Slovakia kept iron ore production figures confidential; as a result, the production figures given for iron ore production and ore content in table 1 for the years 2003 to 2006 are estimates. Because of this, the 418% increase in iron ore production from 2006 to 2007 could be the result of erroneous estimates of iron ore production from 2003 to 2006, faulty data in 2007, or a genuine increase in production; at the time of this writing, the cause of the reported increase in production was unknown.

#### Outlook

Slovakia will likely continue to produce modest amounts of mineral commodities, but no significant increases in production are expected. Production of alumina, copper, and crude steel are expected to continue to be dependent on imports of ores and concentrate, and the country is likely to continue to import the majority of its mineral fuels.

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 ${\bf TABLE~1} \\ {\bf SLOVAKIA: PRODUCTION~OF~MINERAL~COMMODITIES}^1 \\$ 

(Metric tons unless otherwise specified)

Commodity <sup>2</sup>		2003	2004	2005	2006	2007
METALS						
Aluminum:						
Alumina		132,089	156,893	162,483	160,507	160,461
Aluminum ingot, primary		165,290	175,000 e	158,400	179,512	190,237
Copper:						
Metal:						
Smelter, primary and secondary	thousand metric tons	58 <sup>r</sup>	13	16	22	21
Refined, primary and secondary		5,800				
Gallium, metal <sup>e</sup>		5 <sup>r</sup>	5 <sup>r</sup>	5 <sup>r</sup>	5 <sup>r</sup>	5
Gold, metal	kilograms	50	50 e	109	100	100 e
Iron and steel:						
Iron ore: <sup>e</sup>						
Gross weight	thousand metric tons	930 <sup>r</sup>	850 <sup>r</sup>	850 <sup>r</sup>	700 <sup>r</sup>	3,627 3
Metal content	do.	326 <sup>r</sup>	302 <sup>r</sup>	259 <sup>r</sup>	250 <sup>r</sup>	200 e
Concentrate, gross weight	do.	NA <sup>r</sup>	NA <sup>r</sup>	NA <sup>r</sup>	NA <sup>r</sup>	NA
Metal:						
Pig iron	do.	3,892	3,765 <sup>r</sup>	3,681	4,145	4,012
Ferroalloys, total electric furnace <sup>e, 4</sup>	do.	95	95	95	95	95
Ferrochromium		1,924	1,634 <sup>r</sup>	894 <sup>r</sup>	19 <sup>r</sup>	
Ferromanganese		43,434	66,959	43,458	59,128	60.000 e
Ferrosilicomanganese		52,773	64,842	47,843	59,128	60,000
Ferrosilicon		41,539 <sup>r</sup>	34,684 <sup>r</sup>	16,512 <sup>r</sup>	16,155 <sup>r</sup>	16,000 e
Steel, crude	thousand metric tons	4,709	4,564	4,242	4,848 <sup>r</sup>	4,800
Semimanufactures	do.	4,115	3,995	4,470 <sup>r</sup>	4,000 e	4,000 e
INDUSTRIAL MINERALS		•	· · · · · · · · · · · · · · · · · · ·		<u> </u>	
Barite, concentrate <sup>e</sup>		12,000	27,100 r,3	12,000 <sup>r</sup>	15,000 <sup>r</sup>	13,000
Cement, hydraulic	thousand metric tons	3,147	3,158	3,499	3,593	3,718
Clays:			· · · · · · · · · · · · · · · · · · ·			
Bentonite		74,938	69,252	75,752	93,373	121,347
Kaolin		31,000	89,420	85,000	30,000	30,000 e
Ceramic <sup>e</sup>		66,000 <sup>3</sup>	50,000	50.000	40,000	40,000
Dolomite	thousand metric tons	1,250	1,117	1,021	990	1,057
Gypsum and anhydrite, crude		93,800	127,100	107,000	110,000	110,000 e
Lime, hydrated and quicklime	thousand metric tons	847	961	946	1,104	1,123
Magnesite, concentrate		397,259	404,776	447,700	555,710	457,763
Nitrogen, N content of ammonia		288,000	275,223	236,040 <sup>r</sup>	241,383 <sup>r</sup>	524,536
Perlite		15,000	23,840	13,000 <sup>r</sup>	20,000	20,000 e
Salt		133,100	121,600	150,850 <sup>r</sup>	150,000 <sup>r</sup>	150,000 e
Sand and gravel <sup>e</sup>	thousand cubic meters	2,200 r	2,200 r	2,000 r	2,000 <sup>r</sup>	2,000
Stone:		,	,	,	,	,
Limestone and other calcareous stones for cement	thousand metric tons	3,453	4,501	6,034	6,611	9,615
Crushed stone	thousand cubic meters	5,075	4,472	6,541	8,727	8,609
Talc		1,000 r	1,500 <sup>r</sup>	1,500 r	1,500 r, e	1,500 e
Zeolites		28,000	37,000	42,000	40,000	40,000 e
See footnotes at end of table		20,000	27,000	.2,000	.0,000	.0,000

See footnotes at end of table.

## TABLE 1--Continued SLOVAKIA: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

(Metric tons unless otherwise specified)

Commodity <sup>2</sup>		2003	2004	2005	2006	2007
MINERAL FUELS AND RELATED	MATERIALS					
Coal, brown and lignite	thousand metric tons	3,077	2,952	2,511	2,200 r	2,111
Coke: <sup>e</sup>						
Metallurgical	do.	1,500	1,500	1,500	1,500	1,500
Unspecified	do.	200	200	200	200	200
Dry natural gas	million cubic meters	198 <sup>r</sup>	170 <sup>r</sup>	142 <sup>r</sup>	198 <sup>r</sup>	142 <sup>p</sup>
Petroleum:						
Crude:						
As reported	thousand metric tons	48	42 <sup>r</sup>	35 <sup>r</sup>	28 <sup>r</sup>	25 <sup>e</sup>
Converted <sup>e</sup>	thousand 42-gallon barrels	325 <sup>r</sup>	285 <sup>r</sup>	237 <sup>r</sup>	190 <sup>r</sup>	170
Refinery products <sup>e</sup>	do.	40,000	44,500	44,500	44,500	40,700 3

<sup>&</sup>lt;sup>e</sup>Estimated; estimated data are rounded to no more than three significant digits. <sup>p</sup>Preliminary. <sup>r</sup>Revised. do. Ditto. NA Not available. -- Zero.

 ${\bf TABLE~2}$  SLOVAKIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2007

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies <sup>1</sup>	Location of main facilities <sup>2</sup>	Annual capacity	
Aluminum	ZSNP Aluminum Works (Slovalco a.s.)	Ziar and Hronom, central Slovakia	195	
Antimony:				
Ore	Liptovska Dubrava	Central Slovakia	50	
Do.	Pezinok	Western Slovakia	50	
Smelter	Vajskova	Central Slovakia	2	
Cement	Lietavska Lucka, Stupava, and Turna	Slovakia	5,400	
Coal:				
Brown	Hornonitranske Bane, a.s.	Prievidza, central Slovakia	3,500	
Do.	Bana Dolina, a.s.	V'lky Krtis, southern Slovakia	500	
Lignite	Bana Zhorie, a.s.	Holic, western Slovakia	400	
Copper:				
Refinery	Kovohuty a.s.	Krompachy, central Slovakia	30	
Ferroalloys	OFZ, a.s.	Istebne	150	
Gallium	ZSNP Aluminum Works (Slovalco a.s.)	Ziar and Hronom, central Slovakia	5	
Iron:				
Ore	Nizna Slana and Rudnany	Central Slovakia	1,600	
Concentrate	do.	do.	1,300	
Lead-zinc, ore	Banska Stiavnica	do.	200	
Magnesite	SMZ a.s.	Jelsava, eastern Slovakia	370	
Do.	Slovmag a.s.	Lubenik, central Slovakia	150	
Petroleum, refinery	SLOVNAFT (MOL Plc., 98.5%)	Bratislava	6,000	
Do.	Petrochema a.s.	Dubova	NA	
Salt	Solivary a.s.	Presov, eastern Slovakia	150	
Steel, crude	U.S. Steel Kosice	Kosice, eastern Slovakia	4,700	
Do.	Zeleziarne Podbrezova a.s.	Podbrezova	600	

Do., do. Ditto. NA Not available.

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<sup>&</sup>lt;sup>1</sup>Table includes data available through January 31, 2009.

<sup>&</sup>lt;sup>2</sup>In addition to the commodities listed, arsenic, diatomite, feldspar, illite, sodium compounds, sulfur, and sulfuric acid are produced, but available information is inadequate to make reliable estimates of output.

<sup>&</sup>lt;sup>3</sup>Reported figure.

<sup>&</sup>lt;sup>4</sup>May include some FeCrSi and FeNi, if any was produced.

<sup>&</sup>lt;sup>1</sup>All mining companies are Government owned.

<sup>&</sup>lt;sup>2</sup>Names and locations of mines and crude oil refineries are identical.