2010 Minerals Yearbook

BULGARIA

U.S. Department of the Interior
U.S. Geological Survey

July 2012
[Revised October 2012]

The Mineral Industry of Bulgaria

By Alberto Alexander Perez

Bulgaria's mineral industry included mine output of metal ores, mineral fuels (mainly coal), and a variety of industrial minerals. Additionally, the metallurgical sector smelted and refined copper, lead, silver, steel, and zinc. On a world scale, however, Bulgaria's mineral industry was small and mainly of regional importance. Bulgaria had the potential to become a globally significant natural gas transit country because the planned Nabucco and South Stream pipelines were to pass through the country.

Minerals in the National Economy

In 2010, Bulgaria's gross domestic product (GDP) based on purchasing power parity was $99.04 billion, which was a slight increase compared with the country's GDP in 2009 of $98.84 billion. Bulgaria's industrial sector accounted for 30.7% of the GDP, and in 2010, the sector grew by 0.4% compared with that of the previous year. In 2009 (the latest year for which data were available), the production value of mining and quarrying activities decreased by 19% compared with that of 2008, and a reported 26,586 people were employed in mining and quarrying (National Statistical Institute of the Republic of Bulgaria, 2010a, b, 2011; U.S. Central Intelligence Agency, 2011).

Production

Refined copper production increased by 9% compared with that of 2009, and refined zinc production decreased by 4.3%. Crude steel production increased by 1.9% but no pig iron was produced in 2010. Production of most industrial minerals was estimated to be recovering after having decreased significantly in 2009 owing to difficult economic conditions in the world and decreased construction activity in the country, which affected demand for industrial minerals (table 1; Italcementi Group, 2011, p. 49).

Structure of the Mineral Industry

Table 2 is a list of major mineral industry facilities.

Commodity Review

Metals

Copper.—In December, Dundee Precious Metals Inc. of Canada announced a long-term loan agreement in the amount of $66.75 million with the European Bank for Reconstruction and Development and Unicredit Bulbank. The proceeds of the loan would be used mostly to finance the company's $150 million Chelopech Mine and Mill expansion. As a result of this expansion, the production of both the mine and the mill was expected to double to approximately 2 million metric tons per year of ore. The construction project was scheduled to be finished by the end of 2011 (Dundee Precious Metals Inc., 2010).

Gold.—In June, Euromax Resources Ltd. of Canada announced that drilling at its project in Breznik had extended the strike of the high-grade gold-silver deposit by 120%, or to 2,200 meters (m) from nearly 1,000 m. The company also announced that drilling reports had identified a parallel gold-silver deposit and a previously unidentified gold-copper deposit (Euromax Resources Ltd., 2010).

Iron and Steel.—Stomana Industry S.A., which was a subsidiary of Sidenor S.A. of Greece, announced in November a proposed investment of more than $35 million by the International Finance Corp. of the World Bank Group. This investment would help fund new capital investment, including a new electric arc furnace. This investment was intended to revitalize the company and provide environmental and financial benefits in the long term (Stomana Industry S.A., 2010).

Industrial Minerals

Cement.—Cement production was estimated to have fallen in 2010 as cement consumption in Bulgaria decreased by 22.4% and sales of cement and clinker by the main producers dropped by 33.4% in 2010 compared with consumption and sales in 2009, respectively. Financial distress and a lack of available financing opportunities affected the domestic residential construction market, and an increase in imports contributed to a further drop in production and prices. Public investment in the construction sector was limited because of growing concerns of financial exposure in the public sector (Cembureau, 2011, p. 7; Italcementi Group, 2011, p. 49).

Mineral Fuels

Coal.—Bulgaria's main producer of coal was Mini Maritsa Iztok EAD, which accounted for about 95% of lignite production in Bulgaria. Economic Mining and Power Combine (SMEK) Balkanbass was removed from the list of bituminous coal producers in table 2. No information was available as to when SMEK Balkanbass stopped production of coal, but Mina Balkan 2000 AD was the only reported producer of bituminous coal (table 2; Ministry of Economy, Energy, and Tourism, 2009, p. 11). No coke was produced in 2010 because the production capacity of Kremikovtzi AD (the country's only coke producer) was shut down in late 2008.

Natural Gas.—On January 31, 2009, Melrose Resources S.a.r.l. stopped production at its Galata field in the Black Sea, which had been the only source of natural gas production in Bulgaria. The field was almost depleted, and Melrose planned to convert it into a gas storage facility that would have an eventual capacity of 1.2 billion cubic meters and potentially up

to 1.8 billion cubic meters. Planning continued as the company waited for various approvals from the Government before continuing work on the project. Melrose also began production in November in two offshore fields in the Black Sea—the Kaliakra deposit, which had reported reserves of 1.4 billion cubic meters, and the Kavarna deposit, which had reserves of 0.7 billion cubic meters (Ministry of Economy, Energy, and Tourism, 2009, p. 6; Melrose Resources Plc., 2011, p. 4–5).

In May 2009, Bulgarian Energy Holding EAD and OAO Gazprom of Russia signed an agreement that established the framework for a feasibility study of the South Stream natural gas pipeline's section through Bulgaria and the establishment of a joint venture to build and operate the pipeline. Following elections in July, a new center-right Government took power in Bulgaria and announced that it wanted to reexamine energy deals made with Russia by the former Socialist Party-led Government. In December, the Bulgarian Energy Ministry and Bulgaria Energy Holding EAD agreed to meet in January 2010 with Gazprom to discuss reestablishing terms for the continuation of the South Stream pipeline project in Bulgaria. The South Stream pipeline had a planned capacity of 63 billion cubic meters per year of natural gas to be transported from Russia to Europe through the Black Sea (Leviev-Sawyer, 2009; OAO Gazprom, 2009, 2010).

On July 13, 2009, Bulgaria, along with Austria, Hungary, Romania, and Turkey, signed an agreement that established the basic legal rules and tariff regulations for the Nabucco natural gas pipeline project. Nabucco was supported by the European Union and the United States and was designed to act as an alternative supply route for natural gas to Europe by transporting 31 billion cubic meters per year of natural gas from Central Asia and the Middle East. Supplies of natural gas for the pipeline were the biggest concern for the project because no source of gas had yet been guaranteed (Offshore, 2009).

Outlook

Improvements in the economic situation in Europe and renewed trade led to a slow recovery of the Bulgarian economy in 2010; however, construction activity in Bulgaria in the residential sector remained poor. A modest increase in domestic demand for mineral commodities in Bulgaria is expected as the economic activity in the country accelerates; the country, however, is likely to remain a modest producer in terms of world production.

References Cited

Cembureau, 2011, Activity report 2010: Brussels, Belgium, the European Cement Association, 54 p.

Dundee Precious Metals Inc., 2010, DPM and Chelopech mining sign $66.75 million bank debt financing with the EBRD and Unicredit Bulbank: Dundee Precious Metals Inc. press release, December 3. (Accessed August 1, 2011, at http://www.dundeeprecious.com/English/news-and-events/news-releases/NewsDetails/2010/DPMandChelopechMiningSign6675MillionBankDebtFinancingwiththeEBRDandUnicreditBulbank/default.aspx.)

Euromax Resources Ltd., 2010, Drilling at Breznik extends length of high grade zone by 120%; identifies parallel zone and new gold copper target: Euromax Resources Ltd. press release, June 24, 2 p. (Accessed August 2, 2011, at http://www.euromaxresources.com/i/pdf/news/NR_20100624.pdf.)

Italcementi Group, 2011, 2010 annual report: Bergamo, Italy, Italcementi Group, 285 p.

Leviev-Sawyer, Clive, 2009, Bulgaria, Russia agree on new talks on gas, South Stream, and Belene: The Sofia Echo, December 24. (Accessed August 24, 2010, at http://sofiaecho.com/2009/12/24/835335_bulgaria-russia-agree-on-new-talks-on-gas-south-stream-and-belene.)

Melrose Resources Plc., 2011, Annual report and accounts 2010: Edinburg, Scotland, Melrose Resources Plc., May, 80 p.

Ministry of Economy, Energy, and Tourism, 2009, Bulletin on the state and development of the energy in the Republic of Bulgaria: Ministry of Economy, Energy, and Tourism, March, 15 p. (Accessed August 23, 2010, at http://www.mee.government.bg/doc_vop/Bulletin[2].2009.EG.edited.pdf.)

National Statistical Institute of the Republic of Bulgaria, 2010a, Employees under labour contract by economic activity groupings and sector in 2009: National Statistical Institute of the Republic of Bulgaria. (Accessed August 2, 2011, at http://www.nsi.bg/ORPDOCS/Labour_2.1.1_EN.xls.)

National Statistical Institute of the Republic of Bulgaria, 2010b, GDP by production approach—Total of economy: National Statistical Institute of the Republic of Bulgaria. (Accessed August 2, 2011, at http://www.nsi.bg/ORPDOCS/GDP_1.1.1_en.xls.)

National Statistical Institute of the Republic of Bulgaria, 2011, Main economic indicators for section 'mining and quarrying': National Statistical Institute of the Republic of Bulgaria. (Accessed July 28, 2011, at http://www.nsi.bg/ORPDOCS/SBS_SecB_08_en.xls.)

OAO Gazprom, 2009, Gazprom and Bulgarian Energy Holding sign cooperation agreement in the framework of South Stream project implementation: OAO Gazprom press release, May 15. (Accessed October 21, 2009, at http://www.gazprom.com/press/news/2009/may/article64564/.)

OAO Gazprom, 2010, South Stream: OAO Gazprom. (Accessed August 24, 2010, at http://www.gazprom.com/production/projects/pipelines/south-stream/.)

Offshore, 2009, Nabucco transit countries sign intergovernmental agreement: Offshore, July 13. (Accessed August 24, 2010, at http://www.offshore-mag.com/index/article-display.articles.offshore.pipeline-transportation.middle-east.nabucco-transit_countries.QP129867.dcmp=rss.page=1.html.)

Stomana Industry S.A., 2010, Summary of proposed investment: Stomana Investment S.A. press release, November 11. (Accessed, August 2, 2011, at http://www.stomana.bg/online/NewsView.aspx?neoid=18&langid=2&catid=3&code=news.)

U.S. Central Intelligence Agency, 2011, Bulgaria, *in* The world factbook: U.S. Central Intelligence Agency. (Accessed July 28, 2011, at https://www.cia.gov/library/publications/the-world-factbook/geos/bu.html.)

TABLE 1

BULGARIA: PRODUCTION OF MINERAL COMMODITIES[1]

(Metric tons unless otherwise specified)

Commodity[2]		2006	2007	2008	2009	2010[e]
METALS						
Aluminum, metal, secondary		12,825	17,330	12,607 [r]	4,107 [r]	12,000
Cadmium, metal, smelter		363	459	460 [e]	420 [e]	420
Copper:						
Ore:						
Gross weight	thousand metric tons	29,572	29,674	27,826	26,936 [r]	27,000
Cu content[e]	do.	124	116	109	110 [e]	110
Concentrate:						
Gross weight	do.	502	502	428	415 [r]	415
Cu content	do.	110	110	105	105	105
Metal, primary and secondary:						
Smelter		238,500	229,100	278,200	276,200	277,000
Refined, electrolytically		65,500	69,900	126,700	196,900	215,100 [3]
Gold, in concentrate	kilograms	3,818	3,964	4,160	4,300 [e]	4,400
Iron and steel, metal:						
Pig iron for steelmaking	thousand metric tons *	1,147	1,069	441	--	--
Ferroalloys[e]	do.	10	10	6 [3]	--	--
Steel, crude	do.	2,124	1,909	1,330	726	740
Semimanufactures[e]	do.	1,400	1,400	1,287 [3]	700	700
Lead:						
Mine output, Pb content		10,000	15,000	15,000	12,000 [r]	12,000
Concentrate:						
Gross weight		25,387	23,395	18,503	19,000 [e]	19,000
Pb content		17,771	16,377	12,950	13,000 [e]	13,000
Metal, refined, primary and secondary		76,028	86,956	90,878	83,000	81,000
Manganese ore:						
Gross weight		20,000	28,000	39,000	39,000 [e]	39,000
Mn content[e]		5,600	7,840	10,900	10,900	10,900
Silver, metal[e]	kilograms	65,000	55,000	55,000	55,000	55,000
Tin, metal, secondary[e]		10	2	2	1	1
Zinc:						
Mine output, Zn content		8,000	10,000	10,000	10,000 [r]	10,000
Concentrate:						
Gross weight		25,917	23,474	20,343	20,500 [e]	20,500
Zn content[e]		13,500	12,200	10,600	10,700	10,700
Metal, refined, primary and secondary		95,341	99,992	106,453	92,000	88,000
INDUSTRIAL MINERALS						
Barite ore, run-of-mine[e]		74,500	50,900	40,000	14,300	14,000
Cement, hydraulic	thousand metric tons	4,093	4,413	4,903	3,000 [e]	3,000
Clays:						
Bentonite	do.	134	99	178	108 [r]	100
Kaolin, raw	do.	1,658	1,631	1,530	939 [r]	900
Refractory[e]	do.	18 [3]	15	15	15	15
Feldspar[e]	do.	93 [3]	90	90	80	80
Fluorspar[e]	do.	2	2	2	2	2
Gypsum and anhydrite:						
Crude	do.	216	234	210	128 [r]	130
Calcined[e]	do.	75	75	75	70	70
Lime, industrial	do.	1,409	1,443	1,422	1,300 [e]	1,300
Limestone and dolomite	do.	3,340	3,335	3,340 [e]	3,100 [e]	3,100
Nitrogen, N content of ammonia[e]	do.	309	350	350 [e]	320 [e]	320
Perlite	do.	5	14	7	15 [r]	15
Pyrites, gross weight[e]	do.	150	150	150	150	150
Salt, all types	do.	2,000	2,000	2,100	1,300 [r]	1,300

See footnotes at end of table.

TABLE 1—Continued

BULGARIA: PRODUCTION OF MINERAL COMMODITIES[1]

(Metric tons unless otherwise specified)

Commodity[2]		2006	2007	2008	2009	2010[e]
INDUSTRIAL MINERALS—Continued						
Sand and gravel:						
As reported	thousand cubic meters	4,293	4,925	5,517	2,996 [r]	3,000
Converted[e]	thousand metric tons	6,900	7,900	8,800	8,000	8,000
Silica, quartz sand	do.	250	551	734	657 [r]	660
Sodium carbonate, calcined[e]	do.	800	800	800	800	800
Sulfur:[e]						
S content of pyrites		25,000	25,000	25,000	25,000	25,000
Byproduct		300,000	300,000	300,000	300,000	300,000
Total		325,000	325,000	325,000	325,000	325,000
Sulfuric acid[e]		1,009,500 [3]	1,010,000	1,010,000	1,000,000	1,000,000
Zeolite[e]		15,000	15,000	15,000	15,000	15,000
MINERAL FUELS AND RELATED MATERIALS						
Coal, marketable:						
Bituminous	thousand metric tons	52	18	19	23 [r]	25
Brown	do.	2,557	2,834	2,643	2,244 [r]	2,200
Lignite	do.	22,750	25,325	26,008	24,700 [e]	25,000
Total	do.	25,359	28,177	28,670	26,967 [r]	27,200
Coke	do.	668	525	337	--	--
Natural gas, marketed	million cubic meters	519	295	218	12	12
Petroleum:[4]						
Crude	thousand 42-gallon barrels	183	176	169	176	180
Refinery products:[e]	do.	54,600	54,400	54,500	50,000	50,000

[e]Estimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. [r]Revised. do. Ditto. -- Zero.

[1]Table includes data available through August 19, 2011.

[2]In addition to the commodities listed, bismuth, chromite, magnesite, palladium, platinum, tellurium, and a variety of crude construction materials (common clays, dimension stone, and crushed stone) may be produced, but available information is inadequate to make reliable estimates of output.

[3]Reported figure.

[4]Figures were converted to barrels from production reported in thousand metric tons, which was reported as the following: Crude petroleum production in 2005—27; 2006—25; 2007—24; 2008—23; 2009—24; and 2010—24 (estimated). Petroleum products in 2005—5,971; 2006—6,829; 2007—6,806; 2008—6,812; 2009—6,255; and 2010—6,250 (estimated).

*Correction posted October 23, 2012.

TABLE 2
BULGARIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2010

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Bentonite, mine output		Bentonit AD (S&B Industrial Minerals AD)	Kardzhali	NA.
Cadmium		KCM S.A.	Plovdiv	300.
Do.		Lead and Zinc Complex Plc. (LZC) (Intertrust Holding, 90%)	Kardzhali	150.[e]
Cement		Devnya Cement (Italcementi Group)	Devnya	2,000.
Do.		Vulkan Cement (Italcementi Group)	Dimitrovgrad	500.
Do.		Holcim Bulgaria AD (Holcim Ltd.)	Pleven Plant and Beli Izvor Plant	2,400.
Do.		Titan Zlatna Panega	Zlatna Panega	1,500.
Coal:				
Bituminous		Mina Balkan 2000 EAD	Central Bulgaria	NA.
Brown		Otkrit Vagledobiv Mines EAD	Pernik coal basin, southwest of Sofia	2,000.[e]
Do.		Vagledobiv Bobov Dol EOOD	Bobov Dol coalfield	1,000.[e]
Do.		Other small producers	Eastern and western Bulgaria	1,000.[e]
Lignite		Mini Maritsa Iztok EAD (state owned)	East Maritsa coal basin near Radnevo	25,000.[e]
Do.		Other small producers	Sofia, Pernik, and Bobov Dol coal basins	5,000.[e]
Coke		Kremikovtzi A.D.	About 10 kilometers northeast of Sofia	NA.
Copper:				
Concentrate, Cu content		Assarel-Medet JSC	Panagurishte, Pazardzhik District	57.
Do.		Ellatzite-Med AD	Mine 8 kilometers south of Etropole, concentrator near Mirkovo village	45.
Do.		Dundee Precious Metals Inc.	Chelopech	13.
Do.		Bradtze	Malko Turnovo	2.
Do.		Burgaskii Mines Ltd., Zidorovo	Burgas, near the Black Sea	1.
Metal:				
Smelter		Aurubis Bulgaria AD (Aurubis AG)	Pirdop	275.
Refinery		do.	do.	200.
Gold, in concentrate	kilograms	Dundee Precious Metals Inc.	Chelopech	2,500.[e]
Do.	do.	Ellatzite-Med AD	Mine 8 kilometers south of Etropole and concentrator near Mirkovo village	NA.
Iron ore		Kremikovtzi A.D.	About 10 kilometers northeast of Sofia	NA.
Kaolin, mine output		Kaolin AD	Senovo, Rousse District	NA.
Lead-zinc:				
Concentrate, Pb-Zn content		Gorubso Co. (Intertrust Holding)	Erma Reka, Kardzhali, Laki and Zlatograd, all in Madan area near Greek border	59 lead, 47 zinc.
Do.		Osogovo Ltd.	Osogovo Mountains, western Bulgaria	3 lead, 2 zinc.
Do.		Rudmetal JSC	Dimov Dol Mine, near Rudozem	3 lead, 2 zinc.
Metal:				
Pb, refined		KCM S.A.	Plovdiv	65.
Do.		Lead and Zinc Complex Plc. (LZC) (Intertrust Holding, 90%)	Kardzhali	33.
Zn, smelter		KCM S.A.	Plovdiv	75.
Do.		Lead and Zinc Complex Plc. (LZC) (Intertrust Holding, 90%)	Kardzhali	28.
Manganese ore		Obrochishte Mine (Euromangan AD)	Tsarkva village, 10 kilometers west of Balchik	NA.
Natural gas	million cubic meters	Melrose Resources S.a r.l. (Melrose Resources Plc., 100%)	Galata field, in the Black Sea off the coast of Varna	NA.
Do.	do.	Oil and Gas Exploration and Production Plc.	Gasfield concessions near Dolni Dubnik, Selanovtzi, and others	NA.
Perlite, mine output		Bentonit AD (S&B Industrial Minerals AD)	Kardzali	NA.

See footnotes at end of table.

TABLE 2—Continued
BULGARIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2010

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Petroleum:				
Crude		Oil and Gas Exploration and Production Plc.	Tyulenovo, Dolni Dubnik, Dolni Lukovit, Gorni Dubnik, and other oilfields	NA.
Refined	42-gallon barrels per day	Lukoil Neftochim Bourgas AD	Refinery at Burgas	215,000.
Silver:				
In concentrate	kilograms	Dundee Precious Metals Inc.	Chelopech	3,200.[e]
Metal		KCM S.A.	Plovdiv	100.
Steel, crude		Kremikovtzi A.D.	About 10 kilometers northeast of Sofia	NA.
Do.		Stomana Industry S.A. (Sidenor S.A., 100%)	Pernik	1,400.
Zeolite, mine output		S&B Industrial Minerals A.D.	Kardzali	15.[e]

[e]Estimated. Do., do. Ditto. NA Not available.