



2010 Minerals Yearbook

CUBA

THE MINERAL INDUSTRY OF CUBA

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Nickel was the most important mineral commodity to the Cuban economy, followed by cobalt, which was produced as a byproduct of the mining of nickel. Other minerals produced in the country included asphalt, bentonite, cement, chromite, clay, crushed stone, feldspar, gypsum, iron ore, lime, limestone, marble, salt, sand, steel, sulfuric acid, volcanic ash, and zeolites. Cuba also produced ammonia, natural gas, petroleum, petroleum products, and sulfur as a byproduct of the refining of petroleum.

Production

Production of most industrial minerals, with the exception of gypsum, hydraulic cement, and lime, decreased during the year. Production of gypsum increased by 42% to 111,000 metric tons (t) and that of lime increased by 8% to 49,700 t; the increase in the production of hydraulic cement was not significant. Production of kaolinite decreased by 95% to 100 t; bentonite, by 66% to 228 t; feldspar, by 40% to 2,800 t; silica sand, by 32% to 11,100 cubic meters; marble, by 17% to 4,300 t; and limestone, by 10% to 2.6 million metric tons (Mt). In the mineral fuels sector, the most significant increase in production was that of petroleum coke, which increased by 120% to 41,000 barrels, followed by liquefied petroleum gas (28.6%), lubricants (25.9%), gasoline (15.4%), and crude petroleum (10.7%). Data on mineral production are in table 1.

Cuba's Oficina Nacional de Estadísticas [National Statistics Office] stopped reporting cobalt and nickel production in 2007; consequently, production of cobalt and nickel for 2009 and 2010 are estimated.

Structure of the Mineral Industry

The Ministerio de la Industria Básica was the Government entity responsible for the mineral and petroleum sectors. Unión Geológico Minera S.A. was the company in charge of prospecting, exploration, and mining of all metallic and nonmetallic minerals with the exception of cobalt and nickel. The production of chromite, cobalt, and nickel was overseen by Grupo Empresarial Cubaníquel S.A. Petroleum prospecting, exploration, marketing, and refining were overseen by Cubapetróleo S.A. Table 2 is a list of major mineral industry facilities.

Commodity Review

Metals

Cobalt and Nickel.—Cuba (51%) in joint venture with the Government of Venezuela (49%) was in the process

of refurbishing the 68,000 metric-ton-per-year (t/yr) Las Camariocas ferronickel plant at a cost of \$700 million. Las Camariocas plant was located in the city of Moa in Holguin Province. Construction of the plant had been undertaken by Czechoslovakia in 1983 through the then Council for Mutual Economic Assistance, but the project was never completed. Cuba and Venezuela planned to ship the ferronickel produced at Las Camariocas to a 500,000-t/yr stainless steel plant in Venezuela, which was also jointly owned by the two Governments. The plant was expected to be operational by 2013 (China Daily, 2010; CubaStandard.com, 2010; El Universal, 2010).

Sherritt International Corp.'s Moa operation produced a total of 33,972 t of nickel and 3,706 t of cobalt in 2010. Sherritt operated the Moa facility in joint venture with the Government (each owned a 50% interest). Production from Moa was processed in a refinery located in Fort Saskatchewan, Alberta, Canada. The company planned to review options for the completion of an expansion at Moa and the construction of a sulfuric acid plant (Sherritt International Corp., 2011, p. 8–9).

Mineral Fuels

Petroleum.—Sherritt held an indirect working interest that varied from 40% to 100% in various petroleum production-sharing contracts in Cuba. The company produced petroleum from near-shore reservoirs off the northern coast of Cuba, which were explored and developed from land-based drilling locations. The average gross working-interest production of oil and gas in Cuba was approximately 21,204 barrels per day in 2010.

More extensive coverage of the mineral industry of Cuba can be found in the 2008 U.S. Geological Survey Minerals Yearbook, volume III, Area reports—International—Latin America and Canada, which is available on the World Wide Web at <http://minerals.usgs.gov/minerals/pubs/country>.

References Cited

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- CubaStandard.com, 2010, Venezuela ferro-nickel venture on track: Tampa, Florida, CubaStandard.com, February 23. (Accessed June 22, 2011, at <http://www.cubastandard.com/2010/02/23/venezuelan-ferro-nickel-venture-on-track/>.)
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- Sherritt International Corp., 2011, 2010 annual report: Toronto, Ontario, Canada, Sherritt International Corp., 124 p.

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

(Metric tons unless otherwise specified)

Commodity ³	2006	2007	2008	2009	2010
Asphalt	49,900	55,900	61,600	80,200	86,900
Bentonite	355	401	382	670	228
Cement, hydraulic	1,704,700	1,805,300	1,705,200 ^r	1,625,700	1,631,400
Chromite	27,900	--	--	--	--
Cobalt, mine output, Co content: ⁴					
Oxide, oxide sinter, sulfide, ammoniacal liquor precipitate	6,081	5,029	3,597	4,000 ^{r, e}	4,100 ^e
Sulfide and ammoniacal liquor precipitate	5,602	4,540	3,175	3,500 ^{r, e}	3,600 ^e
Feldspar	5,500	5,600	4,300	4,700	2,800
Gypsum ^e thousand metric tons	73	80	110	78	111
Iron ore:					
Gross weight	7,800	3,300	--	--	--
Fe content ^e	3,500	1,500	--	--	--
Kaolinite	1,700	2,000	2,000 ^e	2,000 ^e	100
Lime	36,300	42,800	49,900	46,000	49,700
Limestone thousand metric tons	1,700	1,400	1,500	2,900	2,600
Marble cubic meters	5,500	4,200	3,800	5,200	4,300
Natural gas, marketed thousand cubic meters	1,090,600	1,217,900	1,161,000	1,155,300	1,072,500
Nickel, Ni content: ⁴					
Mine output, oxide, oxide sinter, sulfide, ammoniacal liquor precipitate	73,371	73,934	67,265	70,000 ^e	71,000 ^e
Metallurgical products:					
Granular oxide, oxide sinter, powder	39,121	39,911	34,478	35,000 ^e	35,500 ^e
Sulfide	30,967	31,116	32,465	32,500 ^e	33,000 ^e
Ammoniacal liquor	3,283	2,907	322	300 ^e	300 ^e
Total	73,371	73,934	67,265	67,800 ^e	68,800 ^e
Nitrogen, N content of ammonia	42,300	47,400	41,700	27,200	36,000
Petroleum:					
Crude ⁵ thousand 42-gallon barrels	18,702	18,734	19,367	17,614	19,507
Refinery products: ⁶					
Petroleum coke do.	78	76	34	19	41
Gasoline, motor do.	2,707	3,345	6,109	4,197	4,844
Kerosene do.	973	536	325	182	2
Liquefied petroleum gas do.	719	681	651	536	689
Lubricants do.	316	350	360	263	330
Naphtha do.	690	496	490	1,376	736
Total do.	5,483	5,484	7,969	6,572	6,642
Salt thousand metric tons	266	141	157	266	272
Sand, calcareous thousand cubic meters	1,977	2,730	1,827	1,693	1,686
Silica sand cubic meters	9,000	21,400	29,100	16,400 ^r	11,100
Stone, crushed thousand cubic meters	3,044	3,815	3,568	3,416	3,234
Steel	257,200	262,400	273,800	265,800	277,600
Sulfuric acid thousand metric tons	406	428	412	423	423
Volcanic ash	3,500	38,000	34,600	62,100 ^r	72,300
Zeolites	14,000	16,200	20,400	25,800	30,900

^eEstimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. ^rRevised. do. Ditto. -- Zero.

¹Table includes data available through December 31, 2011.

²Statistical data reported by the Cuban Government in Anuario Estadístico de Cuba, unless otherwise specified.

³In addition to commodities listed, crude construction materials (sand and gravel, and so forth) may also be produced, but data on such production are not available, and information is inadequate to make reliable estimates of output.

⁴The Government of Cuba reports figures of nickel-cobalt content of granular and powder oxide, oxide sinter, and sulfide production. The cobalt content of reported nickel-cobalt production was determined to be 1.16% of granular and powder oxide, 1.21% of oxide sinter, 7.56% of sulfide, and 33% of ammoniacal liquor. The remainder of reported figures represent the nickel content.

⁵Production has been converted from metric tons to barrels by using the U.S. Energy Information Administration's factor of 6.449 barrels per metric ton (bbl/t) of crude petroleum.

⁶Production has been converted from metric tons to barrels by using the U.S. Energy Information Administration's factor of 5.51 bbl/t for petroleum coke; 8.53 bbl/t for gasoline; 7.73 bbl/t for kerosene; 11.63 bbl/t for liquefied petroleum gas; 7.00 bbl/t for lubricants; and 8.22 bbl/t for naphtha.

TABLE 2
CUBA: 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
Cement		Cementos Cienfuegos S.A. (Government, 50%, and Las Pailas de Cemento S.A., 50%)	Cienfuegos	1,500
Do.		Fábrica de Cemento 26 de julio	Nuevitas	600
Do.		Fábrica de Cemento Mártires de Artemisa	Artemisa	600
Do.		Cementos Curazao N.V.	Barrio Mujica, Mariel Province	1,110
Do.		Fábrica de Cemento Siguaney	Sancti Spiritus	300
Chromite		Grupo Empresarial Cubaníquel S.A. (Government, 100%)	Moa, Holguin Province	30
Cobalt		Metals Enterprise S.A. (Government, 50%, and Sherritt International Corp., 50%)	do.	3
Gold	kilograms	Oro-Barita Mine (Government 100%)	El Cobre, Santiago ¹	NA
Nickel		Empresa Niquelífera Ernesto Che Guevara	Ernesto Che Guevara Mine Punta Gorda, Holguin Province	33
Do.		Moa Nickel S.A. (Government, 50%, and Sherritt International Corp., 50%)	Pedro Soto Alba Mine, Holguin Province	37
Do.		Empresa Niquelífera Comandante René Ramos Latour (Government, 100%)	Rene Ramos Latour Mine, Nicaro Holguin Province	12.4
Petroleum:				
Crude:	thousand 42-gallon barrels	Empresa de Perforación y Extracción de Petróleo del Centro (Government, 100%)	Northern coast between Havana and Cardenas	12
Do.		Sherritt International Corp. (indirect working interests vary from 40% to 100% in 10 production-sharing contracts with the Government)	Near shore oilfields located at Yumuri, Varadero, Canasi, and Puerto Escondido	7,000
Refinery products	thousand 42-gallon barrels	PDV-Cupet S.A. (Government, 51%, and Petróleos de Venezuela S.A., 49%)	Cienfuegos refinery, Cienfuegos, 250 kilometers from Havana	23,725
Do.	do.	Hermanos Díaz	Santiago de Cuba	8,000
Do.	do.	Ñico López Refinery (Government, 100%)	Havana	NA
Sand		Algaba quarry	Sancti Spiritus	50
Do.		Malabe quarry	NA	32
Do.		Cajobabo	Imias	NA
Steel		Grupo Metalúrgico Acinox (Government, 100%), including: Antillana de Acero	Cotorro, Havana Province	600
Do.		Empresa de Aceros Inoxidables	Las Tunas, Las Tunas Province	370
Do.		4 other steel plants	NA	NA
Zeolite		Empresa Geominera Oriente	Holguin Province	58

Do., do. Ditto. NA Not available.

¹Under development.