

## THE MINERAL INDUSTRY OF

# PANAMA

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The Republic of Panama is on the narrowest and lowest portion of the isthmus connecting North and South America. Panama's geographic location and configuration is considered to be its principal natural resource. The Panama Canal, the 80-kilometer (km) waterway between the Caribbean Sea and the Pacific Ocean, dominated Panama's economy, generating about 30% of its gross domestic product (GDP). More than 5% of the country's economy was credited to mineral transportation. In August 1994, the canal marked its 80th anniversary.<sup>2</sup>

Mining accounted for less than 1/2% of Panama's GDP. Panama mined gold and silver. The Remance gold project was already in production and others, such as the Cerro Quema, Santa Rosa, and Petaquilla projects, were expected to start up in 1995-97. Industrial minerals were produced for domestic use including cement, clays, limestone, salt, and sand and gravel.

The controlling legislation for mining was the Code of Mineral Resources, Decree Law No. 23 of August 22, 1963, as amended by Decree No. 125, July 21, 1964; Decree No. 126, August 21, 1964; Decree No. 142, August 31, 1964; Decree No. 26, August 21, 1969; Decree No. 404, December 29, 1970; Law No. 55, July 10, 1973 (regulating municipal taxes for extraction of sands, gravel, rock, coral limestone, clay, and uncut stone); Law No. 70, August 22, 1973; Law No. 89, October 4, 1973; Law No. 109, October 8, 1973 (regulating the exploration and exploitation of nonmetallic minerals used as construction materials); Law No. 9, January 8, 1974; Law No. 33, November 8, 1984; Law No. 20, December 30, 1985 (reforming articles of the Mineral Resources Code and Law No. 109, which regulated the exploration and extraction of industrial minerals); and Law No. 3, January 28, 1988 (reforming the Mineral Resources Code and giving incentives to the mining industry).

The Ministry of Trade and Industry was the central administrative body responsible for developing and implementing Government policy on industry, trade, and the exploitation of mineral resources. The Mineral Resources Department (MRD), a Division of the Ministry of Commerce and Industry (MCI), was established by Decree No. 404 in December 1970. It was responsible for carrying out the technical and administrative functions stipulated in the Code of Mineral Resources. Applications for mining permits were made directly to MRD. Exploration and mining concessions were granted by MCI. The Mining Law No. 3 was modified on February 8, 1988, to bring the code into line with the

international free market and stimulate foreign and local investors within the mining field, providing the following: (1) Foreign companies were allowed a 4-year concession to work deposits they discovered, with a 2-year extension; (2) Extraction concessions were granted for specific mineral classes for a period of 20 to 25 years, and are extendable; (3) The state was obligated to grant an extraction concession if exploration were successful; (4) The Government reduced the rate of tax on mines to 2% of gross production for base metals and 4% for placer precious-metals production; (5) The Government also waived import duties on capital equipment; and (6) All minerals produced in Panama may be exported freely and were exempt from duties. No restrictions were placed on foreign ownership or repatriation of capital, but there was a 10% withholding tax on dividends or interest payable to foreign shareholders.

Mining in Panama has not been considered large, so environmental problems may not be as serious if the country uncovers larger deposits. Limestone quarries were few and small, scattered throughout the country; they posed no environmental problems to the local population and tourists.

Panama produced only two metals, gold and silver. The production of industrial minerals, such as cement, limestone, and sand and gravel, increased slightly in 1993, reportedly because of a boom in the construction industry. Petroleum product output also rose moderately because of an increase in the tourist industry. (*See table 1.*)

Panama imported almost all mineral requirements for its industrial base. Mineral-related exports consisted primarily of scrap metal and petroleum products. Panama imported about 70% of its crude oil from Ecuador and about 22% from Venezuela under the San Jose Accord. Saudi Arabia supplied the balance of Panama's crude oil requirements. The United States was Panama's largest trading partner, and Panama was the third largest site of U.S. investment in Latin America, after Mexico and Brazil. Panama exported raw materials and natural products primarily to the United States.

A series of governmental, professional, and private organizations were involved in the mining sector. Private companies operated most of the mineral industries in Panama. The Government held a 40% interest in Petroterminal de Panama, S.A., the crude oil transshipment and pipeline activity. (*See table 2.*)

Three large copper deposits have been discovered in the Cerro Colorado, Botija, and Petaquilla Districts. The Petaquilla deposit was among the five largest undeveloped

copper-gold porphyry deposits in the world. The Botija deposit also was on the same property. The minable reserves of both deposits were estimated at 495 million metric tons (Mmt) grading 0.53% copper and 0.124 grams per metric ton (g/t) gold, at a 0.19% copper-equivalent cut-off.<sup>3</sup> The 1,361-square-kilometer concession is owned 52% by Adrian Resources Ltd., of Canada, and 48% by Metall Mining of Canada Ltd. The site was adjacent to a national park (Parque Nacional del Cope), so the project was particularly sensitive to potential environmental damages. Adrian also held concessions to Abajo, Belencillo, Brazo, Esperanza, Lata, Molejon, Oro del Norte, Oro del Sur, Palmilla, Santa Lucia, and Vega, most of which were on the Petaquilla property.<sup>4</sup>

Panama's Cerro Colorado copper deposit was in the Chiriqui Province, near the Costa Rican border. Cerro Colorado was also considered to be one of the largest undeveloped copper deposits in the world. The Government was attempting to attract foreign investors to evaluate further the deposit.<sup>5</sup>

Greenstone Resources Ltd., Toronto, Canada, was working on the Santa Rosa gold deposit. The deposit is 1 km south of Canazas, Veraguas Province. The Santa Rosa operations consist of five deposits, mined from two open pits. Initial production was to be from the Alto de la Mina pit, followed by the Santa Rosa pit, which hosted the Santa Rosa A, B, C, and D deposits. The Santa Rosa concession encompassed a collapsed volcano with gold deposits on the northern rim. Reportedly, this reserve contained 18,500 kilograms of gold. The ore was to be mined by open pit methods and then heap leached, with production to start in early 1995. Greenstone selected Houston, Texas-based Brown and Root, Inc. as its mining contractor. The gold recovery plant was being built by Summit Valley Equipment and Engineering Inc., Salt Lake City, Utah. Greenstone also worked on two production concessions in the area surrounding the Santa Rosa project, called Aquacatal, and Boca d'Hugui.<sup>6</sup>

Manganese deposits were known in five areas in Panama: Bahia de Mandinga, Bahia de Montijo, Calzada Larga, Nombre de Dios, and Rio Boqueron. The Nombre de Dios area on the north coast has been the most productive. A feasibility study was conducted in 1992 by the Caribbean Mining Company Inc. (CMC), Fort Worth, Texas, to reopen the open pit Cerro Viejo Mine, northeast of Colon. The mine, scheduled to begin operations in January 1994, contained an estimated 600,000 metric tons of manganese ore reserves. The company had received a 25-year manganese mining concession from the Government on August 1992.

A second manganese deposit, La Soledad, also was in Colon Province, and exploration rights also were granted to CMC. The deposit was composed mostly of pyrolusite and psilomelane with a grade of more than 85% of manganese oxide and, according to published sources, reserves were estimated at 1 million metric tons of ore.

Panama produced cement, clays, lime, limestone, marine salt, and sand and gravel in small operations. Cement was produced by Empresa Estatal de Cemento "Bayano" at Calzada Larga and by Cemento Panama, S.A. at

Quebrancha, both of which were near the canal. As part of the privatization program, on August 19, 1994, the Government sold its 95% share in the Cemento "Bayano" to a Mexican company, Cementos Mexicanos S.A. A 5% share of the plant was sold to employees as part of the country's new pension plan.<sup>7</sup>

In Panama, all crude oil was imported from Ecuador, Mexico, Saudi Arabia, and Venezuela for the refining of its petroleum products. Texaco Exploration Panama Inc. began oil exploration in 1993 off the northwest coast in Bocas del Toro Province.

The enactment of Decree No. 29 on July 14, 1992; Decree No. 38 in September 1992; and Decree No. 26 on May 6, 1993, liberalized the status of the petroleum market and created a Petroleum Free Zones (PFZ). The PFZ were areas administered by foreign companies which signed a contract with the Government through the Ministry of Trade and Industry. The establishment of these zones was directed at making use of Panama's advantage as an area through which ships and aircraft must pass to sell crude oil and petroleum products. The principal benefit of these zones was that crude oil and petroleum products can be imported free of tax and stored, pumped, transferred, distributed, sold, and refined for subsequent export.<sup>8</sup> Roads in Panama were generally in good condition, especially in and around urban areas. The Pan-American Highway runs through most of the length of the country along the Pacific coast. Paved highways accounted for 2,745 km of about 8,500 km of roads. There was only 238 km of railroad track in the country.

Proximity to both the Pacific Ocean and the Caribbean Sea make the 82-km Panama Canal very useful and profitable. Transportation of mineral products shipped through the canal, or oil sent through a pipeline, has been a significant facet of the minerals industry in Panama. Crude oil was transhipped through a 130-km pipeline extending from Puerto Armuelles on the Pacific coast to Chiriqui Grande on the Caribbean coast. The port of Bahia Las Minas in Colon, the site of the oil refinery of Refineria Panama, S.A., handled and received oil tankers and other vessels.

Electricity in Panama was generated by the state-owned Instituto de Recursos Hidraulicos y Electrificacion. The electrical capacity was rated at 848 megawatts (MW), 65% of which came from the hydroelectrical stations. Private companies supplied about 265 MW to the country's total capacity. A geothermal energy region in southwestern Panama had an estimated potential of 400 MW.

The growing construction and tourism industries in Panama will require the building of an improved infrastructure, such as paved roads and hotels, as well as upgraded seaports and power stations. Production of all mineral commodities also was expected to increase in 1995 because of the growing construction and tourism industries. Because of a resurgence in mining activity, Panama will be systematically reforming its mining laws to allow foreign companies the flexibility needed to conduct exploration activities and to form joint ventures. In the last 4 years, at least 45 different exploration projects have been conducted

in Panama, 35 of them involving joint ventures, with many having foreign partners. According to numerous industry observers, as new gold mines come on-stream in the next 5 years, directed by either Adrian Resources or MinAmerica with Cypres/Amax, exports of precious metals were expected to overtake Panama's present nonmineral exports of bananas and shrimp. According to economists, investment in mining will continue to offer the strongest opportunities for expansion of capital in Panama.

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<sup>1</sup>Text prepared May 1995.

<sup>2</sup>GlobalFinance (New York): July 1994, pp. 39-42. Journal of Commerce (New York): Aug. 26, 1994, p. 2A. Latin American Times (London): Sept. 1994.

<sup>3</sup>Latin America Mining Record (London): Apr.-May 1994, p. 3. The Northern Miner (Toronto): Nov. 14, 1994, p. 1; Apr. 25, 1995, p. 1.

<sup>4</sup>The Northern Miner (Toronto): Apr. 11, 1994, p. B10; Apr. 25, 1994 p. 1.

<sup>5</sup>Latin American Economy & Business (London): May 1994, p. 27. Randb International Ltd. (Golden, Colorado): Fall 1994.

<sup>6</sup>LatinoMineria(Santiago): Feb. 1994, p. 14; May 1994, p. 57; Aug. 1994, p. 4. Mining Engineering, The Society for Mining, Metallurgy, and Exploration (Littleton, Colorado): Don C. White. "Geology and Mineralization of the Santa Rosa Gold Deposits, Panamá, Apr. 1994, pp. 346-349. Mining Journal (London): Apr. 29, 1994, p. 310. The Northern Miner (Toronto): Apr. 11, 1994, p. B10; Aug. 8, 1994, p. 1

<sup>7</sup>Journal of Commerce (New York): Aug. 26, 1994, p. 2A.

<sup>8</sup>General Agreement on Tariffs and Trade (Geneva): L/7426/Add.2, Aug. 19, 1994, p. 13.

## Major Sources of Information

Dirección General de Recursos Minerales  
Ministerio de Comercio e Industrias  
P.O. Box 8515, Panama 5, Panama  
Telephone: (507) 36-1823; Fax: (507) 36-3173  
Refinería Panama S.A.  
Calle 39 y Avenida Balboa  
P.O. Box 5270, Panama 5, Panama  
Telephone: (507) 27-1433; Fax: (507) 27-0190

## Major Publications

Dirección de Estadística y Censo, Panama: Panama en Cifras, annual.

Dirección General de Recursos Minerales, Ministerio de Comercio e Industrias, Panama: Panama, A Directory of Mineral Resources, Results from the National Mineral Inventory Project 1988-1990, 1991, 11 pp.; The Mining Sector of Panama, 1993.

Latin American Mining Institute, Washington, DC: Mexico and Central America Investment and Mining Guide, annual.

TABLE 1  
PANAMA: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Commodity	1990	1991	1992	1993 e/	1994 e/
Cement e/	300,000	300,000	250,000	300,000	350,000
Clays:					
For cement	122,000	369,000	415,000	420,000	400,000
For products	90,000 e/	75,300	72,800	72,900	72,500
Gold kilograms	85	194	250	255	275
Lime e/	3,000	1,320	1,500	1,500	1,750
Petroleum refinery products e/ thousand 42-gallon barrels	8,470 3/	8,000	9,000	9,500	10,000
Salt, marine e/	22,200	18,000	20,000	20,000	20,000
Silver kilograms	41	91	162	165	175
Stone, sand and gravel:					
Limestone:					
For cement	316,000	290,000	666,000	670,000	700,000
For other uses	77,100	48,000	50,000 e/	55,000	57,000
Sand and gravel thousand tons	470	1,940	2,450	2,500	2,700
Sand and silica	14,800	17,600	22,600	22,500	22,500

e/ Estimated. r/ Revised.

1/ Previously published and 1994 data are rounded by the U.S. Bureau of Mines to three significant digits.

2/ Includes data available through Apr. 27, 1995.

3/ Reported figure.

TABLE 2  
PANAMA: STRUCTURE OF THE MINERAL INDUSTRY FOR 1994

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Cement		Empresa Estatal de Cemento "Bayano" (Government, 50%; private, 50%)	Calzada Larga, Panamá Province	300
Do.		Cemento Panamá, S.A. (private, 100%)	Quebrancha, Panamá Province	310
Gold	kilograms	Minas Santa Rosa, S.A. (Greenstone Resources Ltd. Canada, 100%)	Santa Rosa Mine, Veraguas Province	1800
Do.	do.	Transworld Exploration, S.A. and Minera Remance (Peru)	Remance Mine, Veraguas Province	293
Do.	do.	Sociedad de Inversiones IXTAPA, S.A. (private, 100%)	Espíritu Santo de Cana Mine, Darién Province	NA
Petroleum products	million 42-gallon barrels	Refinería Panamá, S.A. [Texaco Panama Inc. (U.S.), 100%]	Las Minas, Colón Province	14
Silver	kilograms	Transworld Exploration, S.A. and Minera Remance (Peru)	Remance Mine, Veraguas Province	200

NA Not available.