

## THE MINERAL INDUSTRY OF

# HONDURAS

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The Republic of Honduras ranked among the least developed countries in the Western Hemisphere, subsisting primarily on its agricultural productivity. Increasing mineral exploration suggested that its economy might eventually benefit from mineral production. In 1997, however, with a gross domestic product (GDP) of about \$11.5 billion and a real growth rate of about 3%, the country faced problems of unemployment, inflation, external debt exceeding the GDP (Financial Times, 1997), and dependence on exports of coffee and bananas. The Government encouraged foreign investment, and new mining legislation was aimed at moderating the tax climate.

Mining laws in Honduras include Decree 194 of 1984 covering the petroleum industry; a subsequent petroleum and minerals law, Decree 123, passed in 1990; and a general mining code passed in 1991. Mineral and petroleum deposits were owned by the Honduran Government. All deposits were available for exploration and exploitation by private companies through concessions granted to individuals or corporations within the terms of the general mining law. Exclusive exploration concessions to foreigners were granted for 4 years and were renewable for 2 years. Mining concessions were granted for 40 years. All companies were required to have a labor force that was 90% Honduran (Latin American Mining Institute, 1993).

Honduras produced mainly lead and zinc, with ancillary copper, gold, and silver, and minor amounts of cadmium associated with the zinc. Industrial minerals included cement, gypsum, limestone, marble, and salt. Honduras exported about 40% of its metals to Europe and much of the remainder to Japan, Mexico, the United States, and Venezuela.

The second largest gold mine in Honduras, the San Andres Mine, 150 kilometers southwest of San Pedro de Sula, was not yet in full production after extended heap-leach testing. The owner, Canada's Greenstone Resources Ltd., projected reserves of 1 million ounces (31.1 metric tons) of gold at its Water Tank Hill deposit and predicted as much or more at the nearby Twin Hills deposit. Production plans were for 180,000 ounces [roughly 5,600 kilograms (kg)] per year (Northern Miner, 1997b). Production would be open pit, followed by heap leaching, with actual mine startup scheduled for mid-1998. The local company is Honduran, Compania Minerales de Copan, S.A. de C.V., owned by Greenstone (99%).

Vancouver-based Mar-West Resources Ltd., probably the principal concession holder in Honduras with about 20 properties, had several joint-venture exploration projects underway with such companies as Tombstone Exploration Co. and Battle Mountain Gold Co. which are U.S. companies, and Curion Ventures Corporation, which is a Canadian company. The Mar-West

(80%) and Curion (20%) joint venture on the San Martin concession met with apparent success where it drilled the so-called sinter zone, an epithermal hot-springs zone paralleling the surface of a broad hill. Preliminary results showed mineralization of 1.27 grams per ton (g/t) of gold through a thickness of 19.8 meters, with the deposit remaining open to the south, east, and west (Northern Miner, 1977a).

The El Mochito Mine near Lake Yojoa, operated by Compania Minera Santa Barbara S.A., a wholly owned subsidiary of Canada's Breakwater Resources Ltd., was the only large operating base metal mine in Honduras. Although El Mochito is the largest lead-zinc mine in Central America, lead and zinc concentrates from the mine contributed less than 2% to the GDP. Moreover, less than 0.3% of the national labor force was involved in mining. During the year, however, Breakwater drilled to augment reserves at El Mochito, especially to confirm that the Salva Vida and the Nacional ore bodies are part of the same mineralized trend and open along strike. Further drilling underground was set to test an extension of the San Juan ore zone above the Mochito shales (Southam Mining Publications Group, 1997, p. 82).

After pressing exploration drilling during the year at its Vueltas del Rio deposit in northwestern Honduras, Geomaque Explorations Ltd. (Canada) was able to project a resource of 3.6 million metric tons (Mt) grading 1.6 g/t for a total of 184,000 ounces (572 kg) of contained gold, suitable for open-pit mining and heap leaching for recovery (Mining Journal, 1997).

Very moderate tonnages of antimony were recovered by entrepreneurs in the 1970's and the 1980's. A major effort at recovery evidently was mounted in 1995 (and perhaps 1996), judging from information reported in the Honduras Minerals Questionnaire (Direccion General de Minas e Hidrocarburos, 1995), but further data are awaited.

The Cementos de Honduras S.A. and the Industria Cementera Hondurena S.A. de C.V., were the largest cement companies in Honduras, with capacities of 600,000 and 450,000 metric tons per year (t/yr), respectively. Both companies were privately owned. Salt was produced in the Choluteca district, in the southwestern area of the country. Gypsum and marble were produced primarily for export, and limestone was used in local cement plants.

Although Honduras had several undeveloped oil basins, such as Matique, Olancho, Tela, and Ulua, Colombia, Mexico, and Venezuela supplied its crude petroleum. Refineria Texaco de Honduras S.A., the only refinery in Honduras, operated privately in Puerto Cortes, Trujillo Bay, and relied entirely on imported crude. Even so, the country depended on imported petroleum products for domestic consumption.

## References Cited

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- Mining Journal, 1997, Geomaque estimates resource: Mining Journal (London), December 19, p. 505.
- Northern Miner, 1997a, El Mochito mine shows improvement: Northern Miner, August 25, p. 1.
- 1997b, Greenstone to boost capacity at San Andres: March 10, p. 22.

## Major Sources of Information

- Direccion General de Inversiones y Promocion de Exportaciones  
Ministerio de Economia y Comercio  
Plaza Peatonal, Edif. Salame, 4to. Nivel  
4ta. Calle, 4ta. Avenida, Tegucigalpa, DC, Honduras
- Direccion General de Minas e Hidrocarburos  
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Telephone: (504) 32-7848; Fax: (504) 32-5375
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TABLE 1  
HONDURAS: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Commodity	1993	1994	1995	1996	1997 e/
Antimony, mine output	--	--	4,800	400 r/ e/	300
Cadmium, Cd content of lead and zinc concentrates e/	113	46	32	45	45
Cement	723,000	615,000 r/	721,000 r/	952,000 r/	980,000
Copper, Cu content of lead and zinc concentrates	1,000 e/	500 e/	-- r/	--	--
Gold kilograms	111	106 e/	111	142	150
Gypsum e/	25,500	25,500	26,000	26,000	28,000
Lead, mine output, Pb content	3,550	2,810	2,619	3,367	3,400
Petroleum refinery products e/ 3/ thousand 42-gallon barrels	1,900	1,900	2,000	2,100	2,100
Salt e/	30,000	25,000	25,000	25,000	25,000
Silver kilograms	23,934	24,876	34,665	29,430	35,000
Building materials: e/					
Limestone	400,000	400,000	450,000	450,000	450,000
Marble square meters	95,000	90,000	93,000	94,000 r/	95,000
Zinc, mine output, Zn content	24,000 r/	23,000 r/	26,213	25,325	25,500

e/ Estimated. r/ Revised.

1/ Estimated data are rounded to three significant digits.

2/ Includes data available through March 1998.

3/ Includes liquefied petroleum gas, aviation and motor gasoline, diesel, kerosene, and distillate fuel oil.

TABLE 2  
HONDURAS: STRUCTURE OF THE MINERAL INDUSTRY FOR 1997

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity e/
Cement		Cementos de Honduras, S.A. (private, 100%)	Río Bijao plant., San Pedro Sula, Cortes Department	600
Do.		Industria Cementera Hondurena, S.A. de C.V. (private, 100%)	Piedras Azules plant, Comayagua Department	450
Gold	kilograms	Compania Minera Santa Barbara (Breakwater Resources Limited, 100%)	El Mochito Mine, Santa Barbara Department	300
Do.	do.	Cia. Minerales de Copan, S.A. (Greenstone Resources Limited, 92%; controls other 8%.)	San Andres Mine, Copan Department	150
Lead		Cía. Minera Santa Barbara (Breakwater Resources Limited, 100%)	El Mochito Mine, Santa Barbara Department	35
Petroleum products	thousand 42-gallon barrels	Refineria Texaco de Honduras, S.A. (Texaco, Inc., 100%)	Puerto Cortes, Cortes Department	5,040
Silver	kilograms	Cia. Minera Santa Barbara (Breakwater Resources Limited, 100%)	El Mochito Mine, Santa Barbara Department	50
Do.	do.	Cia. Minera El Paso Mining (private, 100%)	La Pochota Mine, Valle Department	20
Steel		Aceros de Honduras, S.A. (100%)	Choloma, Cortes Department	14
Zinc		Cia. Minera Santa Barbara (Breakwater Resources Limited, 100%)	El Monchito Mine, Santa Barbara Department	30