

# 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. With a gross domestic product (GDP) of about \$5.3 billion and a real growth rate of about 3% in 1998 (the most recent year for which data are available), the country faced problems of unemployment, inflation, external debt exceeding the GDP, and dependence on exports of coffee and bananas (World Bank, 1999). The Government encouraged foreign investment, and new mining legislation was aimed at moderating the tax climate. The more immediate problem in Honduras, however, was the recovery from the devastating effects of Hurricane Mitch in October and November 1998.

Mining laws in Honduras include Decree 194 of 1984, which cover 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).

The revised mining law that was passed in early 1999 and will take effect in 2000 was delayed by Hurricane Mitch and a change in Government the previous year. Detailed regulations are still to be worked out, but one new requirement involves a tax of about 25 cents per hectare for mineral concessions. Applying for concessions in Honduras has been a relatively cheap process in the past with no requirement to show capability for carrying out exploration; consequently the country is almost fully staked. Enforcement of the new tax will force many concession holders to either sell or give up their properties. While bad for cash-strapped junior companies, the new law is seen as being good for Honduras in the long run (Metal Bulletin, 1999b).

Honduras produced mainly lead and zinc, as well as 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, 150 kilometers southwest of San Pedro de Sula, was scheduled for production in 1998, but Hurricane Mitch delayed actual mine

startup for 6 months into 1999. The owner, Canada's Greenstone Resources Ltd., projected reserves (measured, indicated, and inferred) of about 1.97 million ounces [61.2 metric tons (t)] of gold at its Water Tank Hill deposit and the nearby Twin Hills deposit. Production plans were for 180,000 ounces, or roughly 5,600 kilograms per year (kg/yr). Production would be open pit, followed by heap leaching. Actual mine startup was delayed for 6 months into 1999 (Greenstone Resources Ltd., 1998). Compania Minerales de Copan S.A. de C.V. was a local company owned by Greenstone.

Vancouver-based Mar-West Resources Ltd., formerly one of the principal concession holders in Honduras with about 20 holdings, which included the very promising San Martin property, was acquired in toto by Glamis Gold Ltd. (Canada). Glamis pressed San Martin exploration to the decision to mine, using an open pit, heap-leach operation designed to produce 80,000 ounces per year [about 2.5 metric tons per year (t/yr)] at total operating costs of \$149 per ounce (31.1 grams). Startup was planned before yearend 2000 (Engineering & Mining Journal, 1999).

El Mochito Mine near Lake Yojoa, was operated by Compania Minera Santa Barbara, which was a wholly owned subsidiary of Canada's Breakwater Resources Ltd., which was the only large operating base metal mine in Honduras; the mine was in its 51st year of production. Late in 1998, the mine had to be closed temporarily owing to the incursion of excessive ground water in the lower workings. Although El Mochito is the largest lead-zinc mine in Central America, it was not a large mine by international standards; concentrates from the mine contained metals that had a value that was less than 1% of Honduras' GDP.

After pressing exploration drilling during the year at its Vueltas del Rio deposit in northwestern Honduras, Geomaque Explorations Ltd. (Canada) was able to project an average annual output of 60,000 ounces (1.87 t) of gold, using heap leaching, for the first 5 years of operation. With the advantage of low stripping ratios, Geomaque reported that its overall costs would amount to \$170 per ounce produced. Within its 11,000-hectare concession, the company identified three explored targets considered to be capable of economic production, as well as several other possibilities (Metal Bulletin, 1999a).

Very moderate tonnages of antimony were recovered by entrepreneurs in the 1970's and 1980's. A major effort at recovery evidently was mounted in 1995 (and perhaps 1996), judging from information reported in the Honduras Minerals Questionnaire (Government of Honduras, 1997), but further data are awaited.

Cementos del Norte S.A. and Industria Cementera Hondurena

S.A. de C.V., were the largest cement companies in Honduras, with capacities of 600,000 and 610,000 t/yr, respectively (International Cement Review, 1998). 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., which was 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.

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### Major Sources of Information

- Direccion General de Inversiones y Promocion de Exportaciones  
Ministerio de Economia y Comercio  
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- Latin American Mining Institute, Washington, DC: Mexico and Central America Investment and Mining Guide, annual.
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TABLE 1  
HONDURAS: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Commodity	1995	1996	1997	1998	1999 e/
Antimony, mine output e/	4,800 3/	400	300	--	--
Cadmium, Cd content of lead and zinc concentrates e/	54	74	75	75	75
Cement	721,000	952,000	1,041,000 r/	1,250,000 p/	3,000,000 p/
Gold kilograms	111	142	150 e/	150 e/	150
Gypsum e/	26,000	26,000	28,000	30,000	30,000
Lead, mine output, Pb content	2,619	4,700	5,900	4,329 r/	5,226 3/
Petroleum refinery products e/ 4/ thousand 42-gallon barrels	2,000	2,100	2,100	2,200	2,200
Salt e/	25,000	25,000	25,000	25,000	25,000
Silver kilograms	34,665	29,430	35,000 e/	42,964 r/	46,545 3/
Building materials: e/					
Limestone	450,000	450,000	450,000	450,000	460,000
Marble square meters	93,000	94,000	95,000	95,000	95,000
Zinc, mine output, Zn content	27,100	37,000	39,500	36,639 r/	40,996 3/

e/ Estimated. p/ Preliminary. r/ Revised.

1/ Estimated data are rounded to no more than three significant digits.

2/ Includes data available through April 1, 2000.

3/ Reported figure.

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

TABLE 2  
HONDURAS: STRUCTURE OF THE MINERAL INDUSTRY IN 1999

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity e/
Cement	Cementos del Norte S.A. (private, 100%)	Río Bijao plant, San Pedro Sula, Cortes Department	600
Do.	Industria Cementera Hondurena S.A. de C.V. (LaFarge, 53%)	Piedras Azules plant, Comayagua Department	610
Gold kilograms	Cia. Minera Santa Barbara (Breakwater Resources Ltd. 100%)	El Mochito Mine, Santa Barbara Department	300
Do. do.	Cia. Minerales de Copan S.A. de C.V. (Greenstone Resources Ltd., 100%)	San Andres Mine, Copan Department	2,000
Lead	Cia. Minera Santa Barbara (Breakwater Resources Ltd. 100%)	El Mochito Mine, Santa Barbara Department	6
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 Ltd., 100%)	El Mochito Mine, Santa Barbara Department	47,000
Do. do.	Cia. Minera El Paso Mining (private, 100%)	La Pochota Mine, Valle Department	20
Zinc	Cia. Minera Santa Barbara (Breakwater Resources Ltd., 100%)	El Monchito Mine, Santa Barbara Department	41

e/ Estimated.