THE MINERAL INDUSTRY OF

PERU

By Alfredo C. Gurmendi

In 1995, Peru, with a population of almost 24 million, had a gross domestic product (GDP) of about \$55 billion. Minerals and related industries were 11% of Peru's 1995 GDP. Mining export revenues, including petroleum, represented about 52% of Peru's total export earnings.

The Peruvian GDP experienced a 12.7% growth during 1994 and a 6.9% growth in 1995. The inflation rate was reduced from about 15.4% in 1994 to 10.3% in 1995. The country's total foreign debt amounted to about \$27.5 billion, and its reported net international reserves were about \$6.6 billion by yearend 1995.

After the Peruvian Government succeeded in controlling the terrorist group called shining path (sendero luminoso) and stabilizing the country's economy, foreign investors viewed such efforts as a distinct sign of the real changes that took place in Peru, making it an attractive open-market economy in Latin America. The country slashed subsidies and tariffs, freed foreign exchange and interest rates, liberalized international investment rules, and embarked on a sweeping privatization process. At the end of 1995, the National Commission for Foreign Investment and Technology reported a total of \$5.3 billion of new investments, of which mining received 63%, petroleum 17%, and the other sectors of the economy 20%.

According to the Carta Minera & Panorama Petrolero (CMPP) of the Andean Air Mail & Peruvian Times, Lima, the Sociedad Nacional de Minería y Petróleo (SNMP), and the Private Investment Promotion Committee, the Peruvian privatization program began on July 19, 1991, privatizing about 200 state-owned corporations and netting more than \$3.6 billion, with committed new investments of about \$4 billion. In 1995 alone, the Government privatized 30 firms collecting \$2.6 billion; investment commitments to modernize and expand operations were \$2 billion.

The dramatic changes in Government policies and the rebounding of Peru's economy resulted in a boom in foreign investment, attracting international corporations that were looking for business opportunities.

The privatization process continued to be managed by COPRI, and responsibility for specific privatization was vested in special committees, Comités de Privatización, whose members were selected from the ranks of leading professionals and officials, mainly from the private sector.

Legal procedures to obtain mining rights were made easier by the enactment of complementary legislation, Supreme Decree No. 018 of July 9, 1992. The Government no longer had exclusive control over exploration, mining, smelting, and refining of metals and fuel minerals. Individuals and private companies were allowed to hold mining permits in Peru.

The state-owned Petróleos del Perú S.A. (PERUPETRO) managed energy-related activities for the Government. All mineral resources, including geothermal resources, belonged to the Government of Peru. The Government granted concessions for use by the State, private companies, and individuals. The administration and management of all mining activities rested in the executive branch. Since 1992, the Central Bank had the legal authority to buy gold.

The General Directorate of Environmental Affairs (DGAA) of the Ministry of Energy and Mines has the responsibility to address environmental problems resulting from energy and mining activities and is mandated to implement the current environmental code and regulations. During 1995, the National Council for Environment (Consejo Nacional del Ambiente) made progress in data base information gathering, which was reported by energy and mining firms under the Preliminary Environmental Assessment, the Environmental Impact Assessment, and the Environmental Adjustment and Management Program. However, concrete followup activities would still need to be undertaken to ensure the DGAA's strengthening and restructuring in a manner that would enhance its efficiency in carrying out environmental planning, intersectoral coordination, and environmental management.

In 1995, according to the statistics reported by CMPP, SNMP, and the Anuario de la Minería del Perú, published by the Ministry of Energy and Mines, the Peruvian metals and minerals production increased substantially compared with that of the previous year (*See table 1*.)

While the Latin American region was experiencing a dramatic economic upsurge as it neared the turn of the century, Peru, as a member of the Andean Common Market (ANCOM, comprising Bolivia, Colombia, Ecuador, Peru, and Venezuela), sold about 8% of its exports to the other ANCOM members and about 5% to the other countries in Latin America. In 1995, in an attempt to increase interregional trade, ANCOM met in Trujillo, Peru, and sought to unify external tariffs.

During 1995, the country's mining production, valued at \$2.8 billion, increased by about 2.6% compared to that of 1994, of which an estimated \$2.6 billion was exported.

Peru's export earnings, including petroleum, amounted to \$2.9 billion, or 52% of its total exports of \$5.5 billion. Imports increased by 38% to \$7.7 billion.

creating a deficit of \$2.2 billion. Peru imported crude oil valued at \$590 million, which created a trade deficit of \$323 million for the energy sector.

The largest state-owned mining company is Empresa Minera del Centro del Perú S.A. (CENTROMIN). Southern Peru Copper Corp. (SPCC), also a large mining company, is privately owned. Private firms, mostly controlled by local interests, dominated the medium and small mining operations.

The new hydrocarbon law eliminated PERUPETRO's exclusive rights in the industry, such as control over secondary recovery of crude oil, refining, and imports and subsequent resale of petroleum and byproducts. The law created more favorable oil and gas exploration and production contract terms for investors, which resulted in an increased number of domestic and foreign companies expressing interest in participating in exploration contracts with PERUPETRO (See table 2.)

In 1995, Peru's copper output increased to 404,900 metric tons (t) of copper from its mine operations, or about 11% compared with the previous year, with a value of \$1.2 billion.

SPCC remained the largest copper producer in the country with an output of 248,038 t of copper from its mine operations at the Toquepala and Quajone open pits; the output was 2% higher than that of 1994 (242,976 t). Magma Copper Co., Peru's second largest copper producer, privatized in 1994, completed its first year operating the Tintaya Mine and produced 66,683 t of copper, achieving a 42% increase with respect to its 1994 output.

CENTROMIN reported a total production of 35,313 t of copper from its seven base metal mines; while its La Oroya complex produced 65,957 t of refined copper, or 7% more than that achieved in 1994. Cyprus-Amax Minerals Co. reported a production of 28,560 t of copper, which was 50% more than that of 1994. Other copper producers were Cía Minera Pativilca (6,684 t) and Cía Minera Condestable S.A. (5,582 t). An additional 14,431 t came from medium- and small-sized mines in the country.

In 1995, Peru's gold production increased by 23% from the previous year, amounting to 56.5 t; the country exported 41.8 t of gold valued at \$463 million. Newmont's Yanacocha Mine remained the largest gold producer in the country, having produced 17.4 t of gold.

Gold recovered as a byproduct from the concentrates of the nation's polymetallic mines amounted to 4 t. Other private gold producers in 1995 were Minera Aurífera Retamas, 3.3 t; Cía. Minera Poderosa, 2.2 t; and Consorcio Minero Horizonte, 2.1 t. Cía. de Minas Orcopampa S.A., Buenaventura's subsidiary, produced 1.9 t of gold as a byproduct of its base metal concentrates. Magma produced 1.2 t of byproduct gold from its Tintaya copper mine. Small

mines reported 2.6 t, and an unknown number of "garimperos" (informal individual miners) accounted for almost half, or 25.8 t, of gold produced in the country.

The southeastern Andes have well-known gold placers on the Inambari River and its tributaries. Placer gold production was concentrated in the Inca and Mariategui Regions, although gold was recovered from placers in rivers and streams throughout the jungle.

In 1995, Shougang Hierro Peru, subsidiary of China's Shougang Corp., produced 3.8 million metric tons (Mt) of iron ore, 17% less than the previous year's output. The Marcona Mine produced all types of iron for export such as pelletized fines, blast furnace pellets, and sinter feed. In 1995, the firm exported 6.5 Mt of iron ore, valued at \$100 million, to Argentina, China, Japan, the Republic of Korea, and the United States. Local sales were made to Empresa Siderúrgica del Perú.

In 1995, Peru produced 232,540 t of lead and 506,000 t of zinc. Lead production increased by 2.7% and zinc decreased by 25.8% compared with 1994 outputs.

CENTROMIN reported a production of 89,695 t of refined lead and 68,374 t of zinc metal and continued as the leading lead-zinc producer in the country.

In 1995, Cía Minera San Ignacio de Morococha S.A., remained Peru's largest private zinc producer with 67,283 t. Cía Minera Santa Luisa, a subsidiary of Mitsui Mining Co. of Japan, produced about 37,557 t of zinc and 17,886 t of lead from its Huanzalá Mine. Cía. Minera Milpo S.A., the largest private lead producer in Peru, reported 25,552 t of lead and 41,767 t of zinc outputs. Milpo was 73.8% owned by local shareholders and 26.2% by foreign investors. Cía. Minera Atacocha S.A. produced about 27,674 t of zinc and 15,110 t of lead.

In 1995, Asarco Corp. transferred its subsidiary, Corporación Minera Nor Perú, to Panamerican Silver of Canada. The company reported a production of 17,799 t of zinc, 5,776 t of lead, and 86 t of silver from its Quiruvilca Mine in northern Peru.

Silver production increased about 9.5% to 1,908 t in 1995, making Peru the world's third largest producer after Mexico and the United States. The medium-sized companies accounted for 63% of total output; large mining companies contributed 33%; and small companies, the remaining 11%.

In 1995, CENTROMIN led silver producers in the nation's total output, with 613 t. Buenaventura and its subsidiary, Orcopampa, dominated the medium-sized silver-mining sector with 202 t.

Minsur S.A., continued being Peru's only tin producer in 1995. Production from its San Rafael Mine in Mariátegui Region was 22,231 t of tin, a 10% increase from that of 1994. Thus, Peru was the second largest tin producer in Latin America after Brazil. Tin concentrates were exported to Brazil and Thailand.

Two private companies in Peru were mining tungsten at the Pasto Bueno Mine in Ancash and at Regina in Puno Region. The Palca XI Mine in Puno, operated by Sociedad Minera Regina, was the main producer. In 1995, production increased to 728 t, or about 184% of that of 1994.

In 1995, five cement companies operated in Peru and Cementos Lima S.A., reported a production of about 860,000 t of cement, or about 40% of Peru's total cement output. The Atocongo has a design capacity of 1 million metric tons per year (Mt/yr), with limestone quarries nearby. Most of the cement was exported primarily to Chile.

Cementos Norte Pacasmayo S.A., was the second largest cement company in Peru, accounting for 21% of total production. It has an installed capacity of 1 Mt/yr, with a plant utilization of 50%. The plant is 670 kilometers (km) north of the Panamerican Highway in Pacasmayo, La Libertad Region.

The phosphate deposits of Bayóvar in northern Peru, scheduled for privatization in mid-1996, had proven reserves of 570 Mt. In 1995, only 37,500 t of phosphate was produced. The 90,000-metric-ton-per-year (t/yr) phosphate plant was operated by Empresa Minera Regional Grau Bayóvar, S.A. Phosphate shipments continued to New Zealand under a 100,000-t contract signed with Norphos International Ltd. of Auckland. Other shipments went to Chile and Costa Rica through the Port of Paita.

Liquid fuels provided more than 60% of Peru's total energy requirements. Petroleum accounted for 23% of energy consumption, and electricity met 10% of energy demand. Natural gas supplied 7% of the country's energy mix.

Peru's largest coal deposits are at Alto Chicama, 140 km north of Trujillo in La Libertad Region. Other coal deposits occur in the Cuenca del Santa in the Marañón Region and coal basins of Goyllarisquizga and Hatun Huasi in the Cáceres Region of central Peru.

Natural gas was primarily piped from the Talara Basin in the Grau Region to the Talara refinery on the coast. Two gasfields in the Ucayali Basin were candidates for development. Peru's proven natural gas reserves at the end of 1995 were estimated at 196 billion cubic meters (m³). The Aguaytia gasfield, approximately 41 km west-northwest of Pucallpa, had proven reserves of 12.5 billion m³ of gas and 13.2 million barrels (Mbbl) of condensate. The country's largest potential gasfield is Camisea in Cuzco. The San Martín and the Cachiriari prospects at Camisea had estimated potential reserves of about 305.8 billion m³ of gas and 725 Mbbl of condensate (natural gas liquids). The fields are distant from potentially accessible markets; the Ministry of Energy and Mines, however, indicated that new infrastructure was needed and must be developed. It was reported that the Government was planning to sign an agreement in mid-1996 with the Mobil-Shell consortium to develop Camisea.

In 1995, petroleum production in Peru averaged 121,762 barrels per day (bbl/d) compared with 1994's output of 127,300 bbl/d. For the eighth consecutive year, Peru imported crude oil and petroleum products to satisfy its

internal demand.

Peru's total crude oil production of 44 Mbbl in 1995 came from PERUPETRO, 33%; Occidental Petroleum Corp. of the United States, 43%; and other producers, 20%. About 65% of the country's crude oil production came from the jungle blocks in the Ucayali Region; the remaining was produced at the coastal and offshore fields in the north of Peru. The country's declining petroleum reserves were estimated at about 400 Mbbl in 1995, compared with the 1981 peak of 835 Mbbl. The largest oil refinery in Peru, Lima, is La Pampilla, with a capacity of about 102,000 bbl/d. The second largest oil refinery in Peru, Talara, has a capacity of about 60,000 bbl/d.

Peru has 1,801 km of railroads and 69,942 km of roads, of which 7,459 km were paved and 13,538 km were unpaved. There were 8,600 km of navigable waterways and tributaries to the Amazon River system and 208 km of waterways into Lake Titicaca. Peru has an installed electrical generating capacity of 5,042 megawatts, 60% of which came from hydroelectric plants.

Important mineral industry ports included Callao, Ilo, Matarani, Paita, San Nicolás, and Talara on the Pacific Ocean and Iquitos on the Amazon River. Also, a petroleum depot at Bayóvar serviced the 800-km North Peru crude oil pipeline. Natural gas and liquid gas were transported through a 64-km pipeline.

Peru's rebounding economy, with strong capital flow from domestic and foreign investors, was expected to bring long-term benefits to the energy, mining, and related mineral industries, which remained the most promising prospects for the Peruvian economy.

The privatization of CENTROMIN and PERUPETRO, scheduled for 1996-97, was expected to continue improving prospects for the mining and oil and gas industries. However, the Government continues facing difficulties with the opposing political parties and labor unions.

Representatives of every sector of the Peruvian economy were optimistic about the future of the country. Current investments are modernizing Peru's industrial infrastructure. Furthermore, future investments in the minerals sector were projected to be about \$8 billion during the next 5 years, of which \$1.8 billion would be dedicated to mineral exploration, \$2 billion for the expansion of current mine operations, and \$4.2 billion for the development of new mines.

Major Sources of Information

Dirección General de Minería Ministerio de Energía y Minas

¹Where necessary, values have been converted from Peruvian nuevos soles (S/.) to U.S. dollars using the average exchange rate for 1995 of S/.2.285=US\$1.00.

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Major Publications

Andean Air Mail & Peruvian Times, S.A., Lima:Carta Minera y Panorama Petrolero, weekly.

International Trade Administration, U.S. Department of Commerce, Washington, DC: Foreign Economic Trends and Their Implications for the United States and Peru, annual.

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Sociedad Nacional de Minería y Petróleo, Lima: Annual Reports.

U.S. Embassy, Lima, U.S. Department of State: Industrial Outlook Report on Minerals, annual.

${\bf TABLE~1}\\ {\bf PERU:~PRODUCTION~OF~MINERAL~COMMODITIES~1/}$

(Metric tons unless otherwise specified)

Commodity		1991		1992		1993		1994 e/		1995 e/	
METALS											
Antimony:											
Mine output, Sb content		278		339		240		460		460	
Metal		227		311		195		379		380	
Arsenic, white 3/		661		644		391		286	2/	285	
Bismuth:											
Mine output, Bi content e/		610		550		1,000		1,000		1,000	
Metal		377		419		937		871	2/	870	
Cadmium:											
Mine output, Cd content e/		526	2/	500		500		600		600	
Metal		138		399		472		507	2/	510	
Chromium, mine output, Cr content e/		410		400		400		400		400	
Copper:											
Mine output, Cu content		382,277	r/	379,128	r/	381,250	r/	365,513	2/	404,990	2/
Sulfate, Cu content		4,700		3,300		3,400		3,500		3,500	
Metal:											
Smelter:		269,000		254,000		254,000		244,000	2/	244,000	
Refined		228,000		232,000		241,000		243,000	2/	243,000	
Electrowon		17,900		19,000		18,200		44,000	2/	44,000	
Total refined		245,900		251,000		259,200		287,000	2/	287,000	
Gold:											
Mine output, Au content 4/	kilograms	9,934		16,000		23,650	r/	42,702	r/	52,500	2/
Metal	do.	5,749	r/	4,183	r/	5,148	r/	3,611	2/	4,000	2/
Indium	do.	3,140		3,050		3,190		4,000	2/	4,000	
Iron and steel:											
Iron ore and concentrate:											
Gross weight	thousand tons	3,590		2,850		4,930		7,430	2/	7,500	
Fe content	do.	2,331		1,845		3,400		4,830		4,900	
Metal:		,		,		-,		,		,	
Pig iron	do.	207		147		147	e/	150		150	
Sponge iron e/		24,100	2/	20,000		20,000		20,000		20,000	
Ferroalloys e/		390		360		360		360		360	
Steel ingots and castings	thousand tons	404		343		417		506		515	
Semimanufactures	urousuru toris	251		242		242	e/	250		250	
Lead:		201					0,	200		200	
Mine output, Pb content		217,864	r/	214,007	r/	224,695	r/	233,510	r/	232,530	2/
Metal		74,511		83,951		87,117		88,071		89,577	
Manganese, mine output, Mn content e/		160		160		160		200		200	
Molybdenum, mine output, Mo content		3,094	r/	5,629	r/	4,777	r/	4,631	r/	4,600	2/
Selenium, metal, refined	kilograms	12,400	•,	14,400	•,	17,100	•,	21,000		21,000	
Silver:		,		,		,		,		,	
Mine output, Ag content		1,927	r/	1,614	r/	1,631	r/	1,742	r/	1,908	2/
Metal, refined		631		691		589		710		710	
Tellurium, metal	kilograms	13,400		18,600		17,400		28,000		28,000	
Tin, mine ouptut, Sn content		6,568	r/	10,044	r/	14,310	r/	20,275		22,331	2/
Tungsten, mine output, W content		1,230	•,	802	•,	398	•,	256		256	
Zinc:		1,200		002		270		200		200	
Mine output, Zn content		628,000		603,000		665,000		682,000	2/	682,000	
Metal		154,000		124,000		157,000		182,000		182,000	
INDUSTRIAL MINERALS		13 1,000		121,000		137,000		102,000	-/	102,000	
Barite	_	9,250	r /	16,579		23,988		53,074	r /	37,420	2/
Boron materials, crude (borates)		26,400	1/	26,600		36,500		30,000	1/	30,000	2/
Cement, hydraulic e/	thousand tons	2,200		2,090	2/	2,090		2,100		2,100	
Chalk e/	thousand tons	91,500		100,000		101,200		101,200		101,200	
Clays:		71,500		100,000		101,200		101,200		101,200	
Bentonite		14,611	r /	14,210	r /	10,250	r /	27,682	r /	26,372	2/
Fire clay		7,320	1/	9,500	1/	9,500		9,500	1/	9,500	21
Kaolin		7,320		5,500	0/	5,100	C/	5,100		5,100	
Common clay		396,000		67,900	C/	138,000	0/	138,000		138,000	
		25,500	2/				C/				
Diatomite e/				25,000		35,100		35,100		35,100	
Feldspar Gyrsum grade		3,000		10,000		11,400	r /	11,400		11,400	
Gypsum, crude See footnotes at and of table		160,000	1/	35,300		35,300	1/	35,000		35,000	

See footnotes at end of table.

TABLE 1--Continued PERU: PRODUCTION OF MINERAL COMMODITIES 1/

(Metric tons unless otherwise specified)

Commodity		1991	1992	1993	1994 e/	1995 e/
INDUSTRIAL MINERALSContinued						
Lime e/ thousa	and tons	14,000	14,000	14,000	14,000	14,000
Mica e/		100	100	100	100	100
Nitrogen, N content of ammonia e/		95,000	90,000	90,000	90,000	90,000
Phosphate, crude		18,200	37,300	37,400	37,400	37,400
Salt, all types e/		200,000	238,000 2/	238,000	238,000	238,000
Stone, sand and gravel:						
Stone:						
Dolomite e/		43,800 2/	40,000	40,000	50,000	50,000
Flagstone e/		300,000	300,000	300,000	300,000	300,000
Granite e/		2,000	2,000	2,000	2,000	2,000
	and tons	3,200	1,480	1,610	1,600	1,600
Marble e/	una tons	30,000	10,300 2/	13,300	12,000	12,000
Onyx e/		500	204 2/	15,300	150	150
Quartz and quartzite (crushed) e/		40,500 2/	40,000	40,000	40,000	40,000
Shell, marl e/		,	*	· · · · · · · · · · · · · · · · · · ·	*	*
		4,000	4,000	4,000	4,000	4,000
Slate e/		18,000	18,000	18,000	18,000	18,000
Travertine e/		5,000	3,990 2/	3,990 2/	5,000	5,000
Sand and gravel:						
	and tons	3,100	960	871	900	900
Silica sand	do.	150	152	115	100	100
Sulfur, elemental:						
Native e/		100	100	100	100	100
Byproduct of metallurgy e/		66,000	60,000 r/	60,000 r/	60,000 r/	60,000
Sulfuric acid, gross weight		207,000	242,000 r/	227,000	220,000	220,000
Talc and related materials: e/						
Talc		2,100 2/	2,000	1,200	1,200	1,200
Pyrophyllite		8,000	8,000	8,000	8,000	8,000
Total		10,100	10,000	9,200	9,200	9,200
MINERAL FUELS AND RELATED MATERIALS						
Coal:						
Anthracite, run-of-mine		125,000	79,800	31,100	35,000	35,000
Bituminous, run-of-mine		25,500	14,500	41,000	45,000	45,000
Total		150,500	94,300	72,100	80,000	80,000
Coke, all types e/		10,000	10,000	10,000	10,000	10,000
Gas, natural: e/		10,000	10,000	10,000	10,000	10,000
		1.010	1 200	1 200	1 200	1 200
Gross million cubic		1,010	1,200	1,200	1,200	1,200
Marketed	<u>do.</u> :	566	570	570	600	600
Natural gas liquids: e/						
Natural gasoline and others 5/ thousand 42-gallor		299 2/	295	295	295	295
Butane	do.	4 2/	4	4	4	4
Total	do.	303 2/	299	299	299	299
Petroleum:						
Crude	do	41,900	42,300	46,000	46,500 2/	46,500
Refinery products:						
Liquefied petroleum gas	do.	1,480	1,540	1,540 e/	1,540	1,540
Gasoline, motor	do.	9,120	9,090	9,090 e/	9,090	9,090
Jet fuel	do.	2,530	2,170	2,170 e/	2,170	2,170
Kerosene	do.	5,470	5,530	5,530 e/	5,530	5,530
Distillate fuel oil	do.	9,590	11,600	11,600 e/	11,600	11,600
Lubricants	do.	54	38	38 e/	38	38
		10,400		24,400 e/		24,400
Residual fuel oil	do.		24,400		24,400	
Asphalt	<u>do.</u>	264	270	270 e/	270	270 848
Other e/6/				010 -/	0.10	2/12
Total	<u>do.</u>	16,700 2/ 55,608	55,486	848 e/ 55,486 e/	55,486	55,486

e/ Estimated. r/ Revised.

 $^{1/\,\}mbox{Table}$ includes data available through Apr. 1996.

^{2/} Reported figure.

^{3/} Output reported by Empresa Minera del Centro del Peru, S.A.

^{4/} Much of Peru's placer gold production was not reported.

^{5/} Includes hexane.

^{6/} Includes refinery fuel and losses.

${\it TABLE \ 2}$ PERU: STRUCTURE OF THE MINERAL INDUSTRY FOR 1995

(Thousand metric tons unless otherwise specified)

Com: 1!t	Major operating companies	Location of	Annual
Commodity	and major equity owners	main facilities Smelter at La Oroya, Junin Department	capacity 700 1/
Antimony	Empresa Minera del Centro del Peru (CENTROMIN) (Government, 100%)		
Barite	Barmine S.A., (private, 100%)	Santa Cruz de Cocachacra, Huarochiri Department	NA
Bentonite	Minerales Andinos S.A., (NL Industries, 90%)	Vichayal Mine, Piura Department.	9
Bismuth	CENTROMIN	Refinery at La Oroya	1,000 1/
Copper	Southern Peru Copper Corp. (SPCC) (Asarco Corp.,	Cuajone, Moquegua Department, and	300
**	63.0%; Phelps Dodge Overseas Capital Corp.,	Toquepala, Tacna Department	
	16.3%; The Marmon Group Inc., 20.7%)	Smelter at Ilo, Moquegua Department	250
	*	Refinery at Illlo, Moquegua Department	175
Do.	CENTROMIN	Cobriza, Huancavelica Department;	60
		Casapalca and Yauricocha, Lima	
		Department; Morococha and San	
		Cristobal, Junin Department	
		Smelter at at La Oroya	65
		Refinery at La Oroya	60
Do.	Magma Copper Corp. (private, 100%)	Tintaya Mine, Cuzco Department	50
Do.	Cyprus-Amax Minerals Co. (private, 100%)	Cerro Verde, Arequipa Department	30
		Electrowon at Cerro Verde	20
Dolomite	Minera Baribent S.A., (private, 100%)	Esperanza, Ancash Department	25
Gold	Minera Yanacocha S.A., (Newmont Mining Corp.,	Yanacocha and Magui-Magui mines	16,000 2/
	38%; Cia. de Minas Buenaventura, 32%; Cedimin S.A., 25%; World Bank's IFC, 5%)	Cajamarca Department	
Do.	Cia. Minera Ponderosa S.A., (private, 100%)	Ponderosa, La Libertad Department	1,300 2/
Do.	Cia. de Minas Orcopampa S.A., (Buenaventura, 100%)	Orcopampa, Arequipa Department	1,050 2/
Do.	Asesoria Contable Minera S.A., (private, 100%)	Ocona, Santa Clarita, Explatoro, and	1,000 2/
	, u	Molino de Oro, Arequipa Department	,
Do.	Cia. Aurifera Rio Inambari S.A., (Cia. Minera del Sur S.A., 84%, Aurifera Claudia, 16%)	Rio Caichive, Madre de Dios Department	200 2/
Iron ore	Shougang Hierro Peru S.A., (private, 100%)	Marcona, Ica Department.	13,000
Lead	CENTROMIN	Cerro de Pasco, Casapalca, San Cristobal,	85
		Morococha, and Yauricocha Mines	
		Smelter at La Oroya	93
		Refinery at La Oroya	95
Do.	Cia. Minera Milpo S.A., (private, 100%)	El Porvenir Mine, Pasco Department	20
Do.	Cia. Minera Santa Luisa S. A., (private, 100%)	Huanzala Mine, Junin Department	40
Molybdenum	SPCC	Cuajone, Moquegua Department	NA
		and Toquepala, Tacna Department	
Petroleum, crude	Petroleos del Peru S. A., (PERUPETRO)	Onshore Piura Department; northeast	68,000 3/
	(Government, 100%)	and central jungle areas, Loreto	
		Department	
Do.	Petroleos del Mar S.A., (PERUPETRO, 100%)	Pacific coast, offshore Piura Department	28,000 3/
Do.	Occidental Petroleum Corp. del Peru (private, 100%)	Northeastern jungle, Loreto Department	90,000 3/
Petroleum products	PERUPETRO	Refineries at Talara, Lima, Iquitos,	185,500 3/
		Marsella, and Pucallpa	
Silica sand	Minera Baribent S.A., (private, 100%).	Maria G. and Martin I., Junin Department	27
Silver	CENTROMIN	Cerro de Pasco, Cobriza, Monterrosas,	466,000 2/
		Morococha, San Cristobal, and	
		Yauricocha Mines	
		Refinery at La Oroya	809,000 2/
Do.	Cia. de Minas Buenaventura S.A., (Buenaventura)	Julcani and Huachocolpa Mines	187,000 2/
	(private, 83%; CENTROMIN 17%)	Huancavelica Department,	
ъ	0' 110' 0 0 0 0	Uchucchacua Mine, Lima Department	161 000 -
Do.	Cia. de Minas Orcopampa S.A., (Buenaventura, 100%)	Orcopampa Mine, Arequipa Department	161,000 2/
Steel	Empresa Siderúgica del Peru (Government, 100%)	Chimbonte, Ancash Department	550
Do.	Empresa Laminadora del Pacifico S.A., (private, 100%)	Pisco, Ica Department	180
Fellurium	CENTROMIN	Refinery at La Oroya	12 1/
Γin	Minsur S.A., (private 100%)	San Rafael Mine, Puno Department	2,500 1/
Tungsten	Minera Regina S.A., (private, 100%)	Palca XI, Puno Department	1,400 1/
Do.	Fermin Malaga Santolalla S. A., (private, 100%)	Pasto Bueno, Ancash Department	1,000 1/

See footnotes at end of table.

TABLE 2--Continued PERU: STRUCTURE OF THE MINERAL INDUSTRY FOR 1995

(Thousand metric tons unless otherwise specified)

	Major operating companies	Location of	Annual
Commodity	and major equity owners	main facilities	capacity
Zinc	CENTROMIN	Casapalca, Cerro de Pasco	235
		Morococha, San Cristobal,	
		and Yauricocha mine units	
		Refinery at La Oroya	70
Do.	Refineria Cajamarquilla S.A., (Cominco Ltd. of Canada,	Refinery at Cajamarquilla	102
	87%; Marubeni Corp. of Japan, 13%), Minero Peru		
Do.	San Ignacio de Morococha S.A., (private, 100%)	San Vicente Mine, Junin Department	70
Do.	Cia. Minera Santa Luisa S. A., (private, 100%)	Huanzala Mine, Junin Department	20

NA Not available

^{1/} Metric tons per year.
2/ Kilograms per year.
3/ 42-gallon barrels per day.