THE MINERAL INDUSTRY OF

TANZANIA

By Ivette E. Torres

Tanzania's gross domestic product (GDP) increased an estimated 3% in 1995. Agriculture is the most important sector of Tanzania's economy, employing more than 80% of the country's workforce and accounting for more than 50% of the GDP and 85% of exports. Mining is a small but important sector of Tanzania's economy. Although the country's natural resources include coal, cobalt, diamond, gold, iron ore, natural gas, nickel, and phosphate rock, the impact of mining on the economy has decreased notably in recent years.

Administration of the mining sector is the responsibility of the Mineral Resources Department under the Mining Act of 1979 (now the Ministry of Water, Energy and Minerals).[1] The mining law of 1979 has been modified by the Policy Issue Papers of 1983, which proposed the mineral wealth of Tanzania as the nation's heritage and gave the State majority ownership in mining activities. However, the Model Agreement of 1988 removed the majority ownership requirement.

Since the early 1990's, the Government of Tanzania has attempted to improve the country's attractiveness to the international investment community with the 1990 National Investment Promotion Act and the creation of the Investment Promotion Center. A former socialist country, the country has a large sector of parastatal entities that in 1994 still accounted for about 70% of the GDP.

As a result of the investment policy changes, in recent years, foreign investors have shown interest in manufacturing, tourism, agriculture, mining, and the construction sectors. Until 1994, most of the foreign investment interest had been from India, Pakistan, and the United Kingdom.

The United States' trade interaction with Tanzania is small, receiving less than 10% of Tanzania's exports and providing less than 5% of its imports. One of the mineral-related items that the United States provides to Tanzania is petroleum refinery products.

Historically, diamond and gold have been the most important minerals produced in Tanzania. Tanzania also produces construction materials, including cement and other industrial minerals. Fuel mineral production in Tanzania has been limited to coal and a small amount of petroleum refinery products. In 1995, production of several mineral commodities, most notably that of gold, decreased in Tanzania. However, large increases were observed in the production of precious and semiprecious gemstones and diamond. During the year, there was no production of coal, lime, or tin, which the country usually produces in modest quantities.

Some of the impediments to Tanzania's developing its mineral industry include its poor infrastructure and lack of energy.

Although production of gold has decreased significantly in the recent past, most of the exploration carried out during the year was for gold. Exploration companies from Australia, Canada, South Africa, Sweden, and the United Kingdom were very active in Tanzania in 1995.

During the year, Sutton Resources Ltd. (Sutton), of Canada continued work in its two nickel-cobalt joint-venture projects with BHP Minerals International Exploration Inc., the Kabanga and the Kagera, located in the northwest part of Tanzania and in the Bulyanhulu gold deposit in the Lake Victoria gold belt.

In June, Sutton announced that its total inferred resources at the Kabanga (Main and North Zones) increased to 34.1 million tons with an average of 1.5% nickel, 0.22% copper, and 0.13% cobalt.[2] Resources at the North Zone were 12.4 million tons at 2% nickel, 0.27% copper, and 0.15% cobalt. Preliminary evaluation of Kabanga concluded that a mine, concentrator, and smelter with an annual capacity to produce high-grade matte containing 29,000 tons of nickel, 4,800 tons of copper, and 2,000 tons of cobalt would be feasible.[3]

In November, Sutton also announced that measured, indicated, and inferred resources at the Bulyanhulu gold project were increased to more than 3.2 million ounces (about 100,000 kilograms)[4] from 1.5 million tons in the first quarter of the year. Efforts in 1996 were planned to continue exploration and increase resources. The mine was scheduled to begin operating in 1999.[5]

Randgold Resources Tanzania, a joint venture between Randgold Resources of South Africa and Pangea Goldfields Inc. (Canada) was formed in September 1995 to explore the Golden Ridge project, which covers three adjacent areas of about 174 square kilometers in Lake Victoria gold fields, northwest Tanzania. Prior to forming the joint venture, Pangea exploration efforts indicated a gold resource of 500,000 ounces (about 15,500 kilograms). Randgold, with full management of the project; with a $5 million expenditure, completion of a bankable feasibility study, and arrangement of financing, could earn a 65% equity in the

property.[6]

In addition, East African Gold Corp., Princess Resources Ltd., Patrician Gold Mines in joint venture with JCI Ltd. of South Africa, Tan Range, Serengueti Diamonds Ltd., and International Gold Exploration AB were also exploring for gold in Tanzania.

Production of diamonds in 1995 increased more than threefold. At yearend 1994, it was announced that De Beers Centenary AG, through its subsidiary Willcroft Co. Ltd. and the Tanzanian Parastatal Reform Commission, agreed to increase Willcroft's interest in Williamson Diamonds Ltd., a joint venture between Willcroft and the Government of Tanzania through the State Mining Corp. that operates the Williamson (Mwadui) Mine, from 50% to 75%.[7] The State Mining Corp. would retain the remaining 25%. Total production of the Williamson Mine since its discovery in 1941 has reached 17 million carats of diamond with a gross value of more than $1 billion.[8]

In 1995, TAMAX Ltd. of the United Kingdom began producing graphite from its Graphtan mine in Marelani, north Tanzania. Production for the year totaled only 359 tons. Construction of the flotation and product-handling plant was completed during the year and the processing plant was commissioned in the second half of the year. The company expects sales in 1996 to reach 6,000 tons.[9]

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[1]Ministry of Water, Energy and Minerals, United Republic of Tanzania. Tanzania—Opportunities for Mineral Resource Development. 1995 (second edition). p. 8, 108 pp.

[2]Sutton Resources Ltd., 1995, Sutton BHP Nickel Project—More High Grade Tonnage Revealed at Kabanga: Sutton Resources Ltd, June 19. (Accessed June 2, 1997 on the World Wide Web at URL http://www.info-mine.com/press_releases/ stt/pr061995stt.html)

[3]Kenyon, M. The Kabanga and Kagera Nickel-Cobalt Projects, Tanzania. Presented at New Cobalt News 1995, Toronto, Canada, May 9-10, 1995; Available from the Cobalt Development Institute, 22 Riverside House, Wickford Essex, SS11 8BB, United Kingdom.

[4]Sutton Resources Ltd., 1995, Gold Resources—Nickel News Is Expected: Sutton Resources Ltd., Nov. 27. (Accessed June 2, 1997, on the World Wide Web at URL http://www.info-mine.com /press_ releases/ stt/pr12795stt.html)

[5]Sutton Resources Ltd., 1997, Bulyanhulu:Sutton Resources Ltd., May 28. (Accessed June 2, 1997 on the World Wide Web at URL http://www. info-mine. com/ sutton/buyanhulu.html.

[6]Mining Journal, London, Advertisement Supplement, V. 327, No. 8390, Aug. 9, 1996, p. 6.

[7]———. Industry in Action. De Beers Increases Tanzania Investment. V. 323, No. 8300, Nov. 4, 1994, p. 325.

[8]Cooper, C. Graphite. Metals and Minerals Annual Review 1996. p. 82.

[9]Page 81 of work cited in footnote 2.

Major Sources of Information

Ministry Water, Energy and Minerals
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TABLE 1
TANZANIA: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Commodity 3/		1991	1992	1993	1994	1995
Calcite		869	1,570	180	540	37
Cement, hydraulic e/		540,000	540,000	540,000	540,000	540,000
Clays: e/						
Bentonite		75	70	70	70	70
Kaolin		1,738 4/	1,360 4/	-- r/	-- r/	--
Coal, bituminous		74,914 r/	71,121 r/	51,270 r/	9,733 r/	--
Diamond 5/	carats	99,763	67,304	40,847 r/	15,668	49,538
Gemstones, precious and semiprecious excluding diamond	kilograms	59,626	48,938 r/	34,826 r/	15,690 r/	67,478
Gold, refined	do.	3,851 r/	3,201 r/	3,264 r/	2,549 r/	44
Graphite		--	--	--	--	359
Gypsum and anhydrite, crude		8,765 r/	27,063 r/	1,205 r/	7,536 r/	1,052
Lime, calcined and hydrated		870 e/	1,806	356 r/	101 r/	-- e/
Limestone, crushed		553,436	990,480 r/	527,120 r/	648,474 r/	1,062,081
Mica, sheet		(6/)	(6/)	(6/)	(6/)	(6/)
Petroleum refinery products:						
Liquefied petroleum gas	thousand 42 gallon barrels	35	33	30 e/	30 e/	30 e/
Gasoline	do.	858	855	850 e/	850 e/	850 e/
Kerosene	do.	437	432	400 e/	400 e/	400 e/
Jet fuel	do.	237	262	250 e/	250 e/	250 e/
Distillate fuel oil	do.	820	820	800 e/	800 e/	800 e/
Residual fuel oil	do.	1,568	1,562	1,500 e/	1,500 e/	1,500 e/
Other	do.	470	450	450 e/	450 e/	450 e/
Total including refinery fuel and losses	do.	4,425	4,414	4,280 e/	4,280 e/	4,280 e/
Phosphate minerals:						
Apatite e/		3,380 r/	16,000 r/	11,400 r/	-- r/	--
P_2O_5 content 7/		1,048 r/	4,948 r/	3,541 r/	-- r/	--
Salt, all types		78,419 r/	78,419 r/	17,740 r/	17,159 r/	6,686
Sand, glass e/		4,263 4/	4,200	4,200	4,200	4,200
Soda ash e/		300	300	300	300	300
Tin, mine output, Sn content		8	8	12	4 r/	-- e/

e/ Estimated. r/ Revised.

1/ Includes data available through June 5, 1997.

2/ Estimated data are rounded to three significant digits.

3/ In addition to the commodities listed, modest quantities of unlisted varieties of crude construction materials (other clays, sand and gravel, and stone) presumably are produced, but output is not reported quantitatively, and available information is inadequate to make reliable estimates of output levels.

4/ Reported figure.

5/ Diamond figures are estimated to represent 70% gem-quality or semigem-quality and 30% industrial-quality stones.

6/ Less than 1/2 unit.

7/ P_2O_5 figures are reported and represent 31% of estimated apatite ($Ca_5Cl(PO_4)_3$) output. Consideration is given for impurities.