

2008 Minerals Yearbook

UGANDA

THE MINERAL INDUSTRY OF UGANDA

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Uganda's geology could possibly host diverse mineral resources. Interest in the country's potential for mineral development had been increasing since the Government made efforts to improve its mining and investment laws. The focus in the past had been mainly on industrial minerals. The Government was continuing with a 5-year Sustainable Management of Mineral Resources Project (SMMRP), which began in 2004 and was funded by the Asian Development Bank, the Government of Uganda, the Nordic Development Fund, and the World Bank at a cost of \$42.7 million. The SMMRP touches on many aspects of mineral resource development, including airborne geophysical surveys, encouraging small-scale miners and artisanal operators to form groups and legalize operations, geologic fieldwork, and the strengthening of governance in mineral sector management. SMMRP will also support the establishment of environmental, geo-informational, and mineral-related databases (Muleme, 2008).

The Ministry of Energy and Mineral Development consists of four technical departments under one directorate. The four technical departments are the Energy Resources Department, the Geological Survey and Mines Department, the Petroleum Exploration and Production Department, and the Petroleum Supplies Department. The purpose of the Ministry is to provide policy guidance for the development and exploitation of the country's energy and mineral resources; acquire, process, and interpret technical data to establish the energy and mineral resource potential of the country; create an enabling environment to attract investment in the exploration, development, and utilization of energy and mineral resources; and inspect, regulate, monitor, and evaluate activities of private companies in the energy and mineral sectors so that the resources are developed, exploited, and used on a rational and sustainable basis (African Development Information, 2008).

Minerals in the National Economy

Uganda's resources of more than 50 minerals rank it among the countries in Africa that have large numbers of minerals. The country had many areas that were thought to have potential for the occurrence of minerals but that have remained relatively unexplored despite the country's long history of production. Exploration was expected to increase after completion of the SMMRP in 2009. The Kamwenge District in western Uganda has some of the richest mineral deposits in the country, including deposits of gold, lead, and limestone. Renewed exploration efforts were taking place in the western Rift Valley where it was thought that considerable hydrocarbon deposits might exist. Revenues of companies in the mining and quarrying sector were increasing at a rate of about 11% per year and a number of mining companies had taken up exploration and development licenses in the mining sector (Uganda Investment Authority, 2008).

The leaders of three African trading blocks—the Common Market for Eastern and Southern Africa (COMESA), the East Africa Community (EAC), of which Uganda is a member, and the Southern Africa Development Community (SADC), of which Uganda was awaiting membership—agreed to create a free trade zone of 26 countries that had a combined estimated gross domestic product of \$624 billion. The three blocks were already well established in their own right but cover varying swaths of land and numbers of people. It was hoped that an agreement would ease access to markets within the region and end problems arising from several countries having membership in multiple groups. The agreement was expected to help intraregional trade, boost growth, and strengthen the block's bargaining power when negotiating international deals. The agreement would also lend its backing to joint infrastructure and energy projects in the zone (BBC News, 2008).

Production

Uganda produced cobalt, gold, iron ore, steel, and tungsten. Uganda also produced such industrial minerals as gypsum, kaolin and other clays, lime, salt, and vermiculite, and such building materials as cement, limestone, and pozzolanic materials. Most of Uganda's aggregate, cobalt, gold, and vermiculite production was exported; production of these commodities was dependent upon world market conditions. Production and consumption depended primarily on the domestic construction sector for cement, limestone, pozzolanic materials, and steel. Data on mineral production of Uganda are in table 1.

Structure of the Mineral Industry

Table 2 is a list of the major mineral industry facilities in Uganda. The table provides the location and production capacities of these facilities.

Commodity Review

Metals

Copper.—After about 32 years of near dormancy, a \$200 million bid was made by A-Tec Industries of Austria to restart the Government-owned Kilembe Copper Mines at Jinja. A-Tec had set up a subsidiary in Uganda, A-Tec Industries (U) Ltd., which was to lead the company's efforts to tap into the natural resources in Eastern and Central Africa, starting with Uganda. The global economic crisis was not expected to affect the bid for Kilembe. When Kilembe was producing copper, the ore was transported by train to Jinja for smelting, but A-Tec stated that its plan was to build a plant in Kasese to do the preliminary processing and to transport some material by road. There was also a potential for recoverable cobalt and gold as coproducts from the copper ore (Magumba, 2008).

At yearend 2008, A-Tec started trial production at the smelter at Jinja. A-Tec signed a sublease to refurbish and operate the

dilapidated smelter along with the Kilembe Copper Mines. An estimated 400 metric tons (t) of copper ore was stockpiled along with a quantity of copper slabs that would be recycled. A-Tec acquired the sublease for a period up to 2014 (Potosi, 2008).

Gold.—African Mineral Fields (a subsidiary of Magnus International Resources Inc. of the United States) was drilling at the Lugaz, Mukono project in central Uganda to confirm previous surveys that showed possible large gold deposits. The drilling program was investigating a 300-meter (m)- to 700-m-wide gold-in-soil anomaly for a distance of about 3.5 kilometers (km). African Mineral was also drilling its Mashonga project in southwestern Uganda. At Mashonga, the program targeted an open pit mine and artisanal workings where high-grade gold, together with high-grade palladium and platinum, were recorded. Additional drilling at Mashonga would target a 3-km- by 500-m-wide gold-in-soil anomaly located about 1 km east of the mine. African Mineral stated that it had recovered some very high-grade gold assays from the surface and from artisanal mine shafts at Mashonga (RedOrbit News, 2008).

The Government announced that commercial production of gold would begin by yearend 2008 at Kama in the central Mubende district by Anglo Uganda Corp. of the United Kingdom. The amount of gold the company would produce after startup was not reported. More than 500 kilograms (kg) of gold was estimated to be in the mining areas licensed to Anglo Uganda (CommodityOnline, 2008).

Grey Crown Resources Ltd. of Canada signed an agreement to acquire a 100% interest in Busitema Mining Cie. Ltd., which owned the Tira Mine. The mine is located in the Busia region within a geologic structure on the Lake Victoria Greenstone Belt. Busitema Mining had title to a mining lease of about 0.5 square kilometers (km²) (Grey Crown Resources Ltd., 2008).

Tantalum and Tin.—After obtaining a mining and prospecting license, Ugaruss Trading House Ltd. of Russia was planning to start its initial operations in Uganda by yearend 2008. Ugaruss was issued two licenses to start mining in parts of Mbarara and in areas near the Uganda—Tanzania border. Ugaruss stated that there was potential for tantalite and tin minerals although the company declined to reveal quantities and locations of the deposits (Abdallah, 2008).

Industrial Minerals

Cement.—Hima Cement Industries Ltd. (a subsidiary of the Lafarge Group of France) started expansion works that would increase production from 350,000 metric tons per year (t/yr) to more than 830,000 t/yr by 2010. This expansion would increase Hima's ability to meet local demand and would cost an estimated \$108 million. The plant's expansion could be a boom to Uganda's construction industry, which imports large quantities of expensive cement from Kenya (Ugee Uganda, 2008).

Tororo Cement Ltd. announced that it planned to invest \$25 million to expand its production capacity. The investment would be made in two phases starting with expansion of the capacity of the raw mill, rehabilitation of the kiln, and optimization of cement and clinker production with the addition of a new packer. The second phase would entail construction of a new cement mill that would increase production capacity from 700,000 t in 2008 to 1 million metric tons (Mt) in 2012. This investment was expected to reduce the country's reliance on cement imports (Tororo Cement Ltd., 2008).

Phosphate Rock.—Phosphates are contained in the carbonates of eastern Uganda. Nilefos Minerals Ltd. of Belgium (a subsidiary of the Madhavani Group) was developing the \$535 million Tororo mining project in the Osukuru Hills. Tororo had an estimated phosphate resource of 230 Mt and covered an area of 26 km². The operation would include an open pit mine and a factory for the processing of the apatite. A fertilizer production facility would be constructed alongside the apatite processing unit. A tailings dam and a water recycling plant would also be constructed (New Vision, The, 2008).

Mineral Fuels and Related Materials

Petroleum.—The Government lifted a ban on licensing new companies to explore for natural gas and petroleum after the approval of the national gas and oil policy, which was to guide the exploration and exploitation activities in the sector. The policy would guide the administration, regulation, and management and would present a basis for regulating and investing in the sector. The Government was expected to start licensing companies through a competitive bidding process. Forty companies had applied for exploration and production licenses and were vying for the remaining four exploration areas. At yearend 2008, petroleum reserves on the Ugandan side of the Lake Albert Rift Basin were estimated to be 1 billion barrels (Dow Jones and Company, Inc., 2008).

Tullow Oil plc of the United Kingdom was in the process setting up a small refinery, which would initially produce about 4,000 barrels per day (bbl/d) of oil, a part of which would be used to run a 5-megawatt (MW)-capacity thermal plant. The Government expected to reach full production of between 40,000 and 60,000 bbl/d of petroleum during the next 5 years. The Government was in the process of constructing roads and railway networks to link the oil region to the rest of the country (Rigzone.com, 2008).

Tullow announced a major discovery at the Giraffe-1 exploration well, which is located in the Butiaba region of Block 1. Data indicated a net reservoir thickness of 38 m, which was the largest encountered in the area in 2008. The well had excellent reservoir quality in all pay zones with moveable oil being recovered at surface. Giraffe-1 was the sixth successful test of the Victoria Nile fairway within the Lake Albert Rift Basin. Tullow had interests in three licenses in the Lake Albert Rift Basin—a 100% interest in Block 2 and a 50% interest in Blocks 1 and 3A. Blocks 1 and 3A were operated by Heritage Oil Ltd. of the United Kingdom, which held the other 50% interest (MBendi Information Services (Pty) Ltd., 2008).

The Government announced that it intended to develop its petroleum downstream by constructing a minirefinery to process petroleum products. The refinery would be located at Hoima, 250 km northwest of Kampala, and was expected to reduce the country's dependence on imported petroleum products. Uganda had been depending on the Kenya Petroleum Refinery in Mombasa, Kenya, for its petroleum products (Petrolworld, 2008). Heritage Oil announced a significant oil find at its Buffalo-1 exploration well in Block 1, in the Albert Basin, Uganda. The well has a gross hydrocarbon-bearing interval of about 123 m, with about 43 m of net hydrocarbon pay. The Buffalo discovery was considered by Heritage Oil to have the potential to be the largest field in Uganda and could exceed the discoveries in the Kingfisher field. A total of 17 wells had been drilled by Heritage Oil (Heritage Oil Ltd., 2008).

Uranium.—IBI Corp. of Canada announced that it was accelerating uranium exploration on the Mubende prospect after signing confidentiality agreements with two companies interested in assessing the Mubende property for possible joint participation in the property. One was a major global mining company with significant uranium interests; the other was a junior company with uranium interests. Names of the companies were not revealed (IBI Corp., 2008).

Outlook

Most of Uganda's cobalt, columbite-tantalite, gold, and vermiculite production will most likely continue to be exported; the outlook for these commodities depends heavily upon world market conditions. For cement, limestone, and pozzolanic materials, the outlook depends primarily upon the strength of the domestic construction sector. The aid provided to Uganda by the African Development Fund, the Nordic Development Fund, and the World Bank Group under the SMMRP will continue to assist the country in increasing production and tax revenues from its mining sector. The continued unreliability of power supplies is expected to pose difficulties for mining and mineral processing operations. Exploration for petroleum is expected to continue to be strong, and the sector will likely continue to develop.

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TABLE 1 UGANDA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²		2004	2005	2006	2007 ^e	2008 ^e
Beryllium, mine output, Be content		25	2			
Cement, hydraulic ^e		558,988 ³	630,000	630,000	650,000	650,000
Clay:						
Kaolin		537	55	30	20	20
Other ^e		44,000	51,000	50,000	50,000	50,000
Cobalt, refined		436	638	689	698 ³	663 ³
Gold, mine output, Au content ⁴	kilograms	1,447	46	22	20	20
Gypsum		181	285	121	125	125
Iron ore			209	208	200	200
Lime, hydrated and quick ^e		10,000	10,000	10,000	10,000	10,000
Limestone		228,776	540,756	425,611	450,000	450,000
Niobium (columbium) and tantalum, ore and concentrate: ⁵						
Gross weight	kilograms	376	273	275	275	275
Nb content ^e	do.	170	130	130	130	130
Ta content ^e	do.	100	70	70	70	70
Pozzolanic material		134,644	138,933	213,640	200,000	200,000
Salt ^e		5,000	1,500	1,500	1,500	1,500
Steel ^e		30,000	30,000	30,000	30,000	30,000
Tin, mine output, Sn content		2				
Tungsten, mine output, W content		52	45	94	75	75
Vermiculite		2,688	2,574	3,512	3,500	3,500

^eEstimated; estimated data are rounded to no more than three significant digits. do. ditto. -- Zero.

¹Table includes data available through July 31, 2009.

²In addition to the commodities listed, the following are presumably produced but information is inadequate to estimate output: corundum, lead, marble, sand and gravel, silica sand, and soapstone.

³Reported figure.

⁴Does not include smuggled artisanal production.

⁵The high level of production in 2004 and subsequent drop suggest the possibility of production from elsewhere outside the country.

TABLE 2 UGANDA: STRUCTURE OF THE MINERAL INDUSTRY IN 2008

(Metric tons unless otherwise specified)

				Annual
Commodity		Major operating companies	Location of main facilities	capacity
Cement		Tororo Cement Industries Ltd.	Tororo	700,000
Do.		Hima Cement Industries Ltd. (Bamburi Cement Ltd., 70%)	Kasese	350,000
Cobalt, refined		Kasese Cobalt Company Ltd. (Blue Earth Refineries Ltd.,	do.	1,000
		75%, and Government, 25%)		
Gold	kilograms	Busitema Mining Company Ltd. (Grey Crown Resources Ltd.)	Tiira Mine near Busia	400
Lead, refined secondary		Uganda Batteries Ltd.	Kampala	1,000
Niobium (columbium) and tantalum	kilograms	M/S Technical Support and Services Ltd.	Wampewo	11,000 ^e
Steel: ¹				
Crude ²		Steel Corp. of East Africa Ltd. (subsidiary of Madhvani Group)	Jinja	25,000
Do.		Steel Rolling Mills Ltd. (subsidiary of Alam Group Ltd.)	do.	21,000
Billet ²		Steel Corp. of East Africa Ltd. (subsidiary of Madhvani Group)	do.	60,000
Rolled ²		do.	do.	101,200
Do.		Steel Rolling Mills Ltd. (subsidiary of Alam Group Ltd.)	do.	40,000
Do.		BM Technical Services Ltd.	Mbarara	20,000
Do.		Sembule Steel Mills Ltd.	Kampala	20,000
Stone, crushed		Hima Cement Industries Ltd.	Kasese district	NA
Do.		Kilembe Mines Ltd.	do.	NA
Do.		Tororo Cement Industries Ltd.	Tororo district	NA
Do.		Zzimwe Construction Ltd.	Mukono district	690,000
Soapstone		African Minerals Ltd.	Moroto	NA
Tungsten ²		Krone Uganda Ltd.	Nyamurilo	115
Vermiculite		Canmin Resources Ltd. (subsidiary of International	Namekara	25,000
		Business Investments Corp.)		

^eEstimated. Do., do. Ditto. NA Not available.

¹In addition to its crude, billet, and rolled steel facilities, Uganda has a galvanized steel plant with a capacity of 30,000 metric tons per year.

²Not operating in 2005; more recent information is not available.