



2014 Minerals Yearbook

UGANDA

THE MINERAL INDUSTRY OF UGANDA

By Thomas R. Yager

In 2014, the East African country of Uganda accounted for 4% of the world's mine production of pumice and pumicite. In recent years, the country also produced aggregates, brick clay, cement, refined cobalt, gold, iron ore, kaolin, refined lead, limestone, niobium (columbium), salt, steel, tantalum, tin, tungsten, and vermiculite. Uganda was not a globally significant consumer of most minerals in 2014; it is likely that domestic consumption of pumice and pumicite was globally significant (Uganda Ministry of Energy and Mineral Development, 2015, p. 204; Crangle, 2016).

The mineral sector of Uganda, except for the petroleum and natural gas subsector, is governed by the Mining Act (2003). The petroleum and natural gas subsector is governed by the Petroleum (Exploration, Development, and Production) Bill 2012 (the Upstream Act) and the Petroleum (Refining, Gas Processing, Transportation, and Storage) Act 2012 (the Midstream Act). The Upstream Act and the Midstream Act, which replaced the Petroleum (Exploration and Production) Act of 1985, were enacted into law in March 2013 and July 2013, respectively (Wass and Musiime, 2013, p. 17).

In 2013, the Government imposed a moratorium on the export of unprocessed iron ore. The Government extended the moratorium to all other unprocessed minerals in February 2014. The moratorium was still in effect at yearend (Abdallah, 2015).

The Ministry of Energy and Mineral Development is responsible for geologic mapping, issuing exploration and mining licenses, and administering the Mining Act (2003), the Midstream Act, the Upstream Act, and their accompanying regulations. At the end of 2014, 818 licenses were in operation, including 487 exploration licenses, 179 prospecting licenses, 70 mineral dealers licenses, 43 location licenses, 36 mining licenses, and 3 retention licenses (Uganda Ministry of Energy and Mineral Development, 2015, p. 4).

Minerals in the National Economy

In 2014, the manufacturing sector accounted for 7.7% of the gross domestic product, and the mining and quarrying sector, 1.4%. The value of output in the mining and quarrying sector increased by 12.9% in 2014 compared with 2.5% in 2013 (Uganda Bureau of Statistics, 2015, p. 226–227).

Uganda's total value of exports was \$2.26 billion in 2014, of which petroleum products accounted for 6.4%; iron and steel, 4.1%; and cement, 3.9%. Nearly all petroleum products exports were reexports. Total imports were \$6.07 billion in 2014, of which petroleum products accounted for 23.3%; iron and steel, 4.2%; nonmetallic mineral products, 2.6%; and fertilizers and crude minerals other than coal, gemstones, or petroleum, 1.1% (Uganda Bureau of Statistics, 2015, p. 276–277, 285–286).

Production

In 2014, the output of mined gold increased by 300%; tin, by 72%; pozzolanic material, by 19%; limestone, by 18%; and brick clay, by an estimated 11%. Iron ore production also increased sharply in 2014. Aggregate production decreased by 41% in 2014 (Uganda Bureau of Statistics, 2015, p. 198, 204). Cobalt, refined gold, marble, and vermiculite production shut down in 2013.

Structure of the Mineral Industry

Most of Uganda's mining and mineral processing facilities were privately owned, including the cement and steel plants, the lead refinery, and the vermiculite mine. Artisanal miners produced pozzolanic materials in the Kabarole District and salt at Lake Katwe (table 2).

Commodity Review

Metals

Cobalt and Copper.—Tibet Hima Industry Company Ltd. of China and its joint-venture partners planned to reopen the Kilembe mines near the border of the Democratic Republic of the Congo; the mines were abandoned in the 1980s. The companies planned to start mining copper in May 2015 and to complete a new copper smelter by August 2015. Initial planned production was 550,000 metric tons per year (t/yr) of ore; Tibet Hima expected to increase output to 1.1 million metric tons per year (Mt/yr) of ore by 2016. The long-term goal for production was more than 1.8 Mt/yr of ore. Reserves at Kilembe were estimated to be 4.17 million metric tons (Mt) grading 1.77% copper. Kilembe also had 5.5 Mt of tailings grading 0.114% cobalt. Tibet Hima hoped to identify sufficient reserves to maintain production for 25 years (Khisra, 2015).

Iron and Steel and Iron Ore.—In August 2014, the Government signed an agreement with Guangzhou Dongsong Energy Group of China for the development of the Sukulu carbonatite complex. Starting in the second half of 2016, Guangzhou Dongsong planned to mine iron ore for use in a new steel mill with a capacity of 300,000 t/yr. Resources at Sukulu were estimated in 1997 to be 45 Mt grading 62% iron (Uganda Investment Authority, 1997, p. 5; Uganda Ministry of Energy and Mineral Development, 2014).

Tin.—Between July 2013 and June 2014, Starfield Metals Ltd. of Australia shipped at least 34 metric tons (t) of tin in concentrate from its Kikagati project in southwestern Uganda. The company planned to increase output to nearly 340 t/yr of tin in concentrate within 12 months of receiving finances and to 760 t/yr within 24 months of receiving finances. The Government revoked Starfield's mining license in October; the company subsequently appealed the decision (Kasbah Resources Ltd., 2014, p. 1, 8; Starfield Metals Ltd., 2014, p. 7, 11–12).

Industrial Minerals

Cement.—Uganda's cement production was 2.14 Mt in 2014 compared with 2.02 Mt in 2013 and 1.16 Mt in 2009. Increased output in recent years was attributable to capacity expansions at Tororo Cement Ltd. to 2.2 Mt/yr from 1.1 Mt/yr, and at Hima Cement Ltd., to 850,000 t/yr from 350,000 t/yr. In November 2012, DAO Group of Saudi Arabia started construction on a new plant in Budaka District with an initial capacity of about 270,000 t/yr. As of May 2014, the plant had been commissioned but had not started production (International Cement Review, 2013; Kolyangha, 2014; Uganda Bureau of Statistics, 2015, p. 61).

Gypsum and Phosphate Rock.—Guangzhou Dongsong planned to mine 2 Mt/yr of low-grade phosphate ore for use in a new fertilizer plant with a capacity of 300,000 t/yr at Sukulu. The company also planned to produce 200,000 t/yr of sulfuric acid and 300,000 t/yr of gypsum. Production was likely to start in the second half of 2016. Phosphate rock resources at Sukulu were estimated to be 230 Mt grading 13.1% phosphorous pentoxide (Republic of Uganda, 1996, p. 34; Tentena, 2014; Uganda Ministry of Energy and Mineral Development, 2014).

Pumice and Pumicite.—Artisanal miners produced pozzolanic material at mines in the Kabarole District, especially in the Parishes of Bwanika and Nyantabooma in the Sub-County of Kichwamaba. Hillmarks Ltd., Seahorse International Ltd., and X4 Ltd. held location licenses in Kabarole District. Pozzolanic material was sold to Hima Cement for use in pozzolanic cement and to local construction companies. National production was 742,423 t in 2014 compared with 623,471 t in 2013 and 440,293 t in 2009 (Uganda Bureau of Statistics, 2015, p. 204; Uganda Ministry of Energy and Mineral Development, 2015, p. 78, 80–81).

Vermiculite.—In late February 2014, Gulf Industrials Ltd. of Australia sold the Namekara vermiculite mine to Jonah Capital (BVI) Ltd. and Richmond Partners Master Ltd. Gulf put the mine on care-and-maintenance status in October 2012 and engaged in limited production in 2013 (Gulf Industrials Ltd., 2014).

Mineral Fuels

Natural Gas and Petroleum.—China National Offshore Oil Corp. (CNOOC) of China, Total S.A. of France, and Tullow Oil plc of the United Kingdom each held a one-third share in the following exploration areas (EA): EA-1, EA-1A, EA-2, and EA-3A on Lake Albert. Total was the operator of EA-1 and EA-1A; Tullow, of EA-2; and CNOOC, of EA-3A. In early 2014, the Government signed an agreement with CNOOC, Total, and Tullow for the development of the Lake Albert oilfields. Production at the Kingfisher oilfield in EA-3A was likely to be between 30,000 and 40,000 barrels per day (bbl/d), and for all oilfields in EA-1, EA-1A, EA-2, and EA-3A, 250,000 bbl/d. The majority of the crude petroleum production at Lake Albert was expected to be exported. CNOOC could start production by 2017 or 2018 (Quinlan, 2013b; Musisi, 2014).

In October 2013, the Government announced plans to build a new petroleum products refinery in Kabaale Parish, which was

part of the Hoima District. The Government hoped to select a joint-venture partner to take a 60% interest in the refinery during the first half of 2014. The joint-venture partner had not been selected at yearend. By 2017 or 2018, the Government planned to start production at the refinery, which would have an initial capacity of 30,000 bbl/d and a subsequent expansion to 60,000 bbl/d. The estimated cost of the refinery was \$2.5 billion. In February 2014, the Governments of Kenya, Rwanda, and Uganda signed an agreement to complete a pipeline that would allow exports from the refinery to Kenya and Rwanda by 2017 (Quinlan, 2013a, b; 2014).

Outlook

Uganda's mineral industry is likely to expand in the next few years with the restart of copper and phosphate rock mining, the expansion of iron ore mining, and the opening of downstream processing plants for phosphate rock and steel. Significant growth in the mineral industry could take place in the longer term depending on the viability of crude and refined petroleum production. High transportation costs because of long distances and poor road conditions, and the inability to produce heavy transport fuels could discourage international investment in the Kabaale refinery. The costs of the refinery and the export pipeline to the Indian Ocean also could be increased by the acidic and waxy nature of the Lake Albert crude petroleum (Quinlan, 2013a, b).

References Cited

- Abdallah, Halima, 2015, Museveni lifts ban on mineral exports: East African [Nairobi, Kenya], August 31, p. 45.
- Crangle, R.D., Jr., 2016, Pumice and pumicite: U.S. Geological Survey Mineral Commodity Summaries 2016, p. 130–131.
- Gulf Industrials Ltd., 2014, Financing update: Sydney, New South Wales, Australia, Gulf Industrials Ltd. press release, February 27, 1 p.
- International Cement Review, 2013, Uganda, *in* The global cement report (10th ed.): Dorking, United Kingdom, International Cement Review, p. 356–357.
- Kasbah Resources Ltd., 2014, September 2014 quarterly report: South Perth, Western Australia, Australia, Kasbah Resources Ltd., 19 p.
- Khisa, Isaac, 2015, Copper production to resume at Kilembe: East African [Nairobi, Kenya], January 11, p. 39.
- Kolyangha, Mudangha, 2014, Shs300b Budaka factory fails to open: Daily Monitor, May 1. (Accessed May 27, 2015, at <http://www.monitor.co.ug/Business/Shs300b-Budaka-factory-fails-to-open/-/688322/2300310/-/13vosbbz/-/index.html>.)
- Musisi, Frederic, 2014, Govt., oil firms tread murky waters on financing oil refinery, power plant: Daily Monitor [Kampala, Uganda], February 7, p. 4.
- Quinlan, Martin, 2013a, Bold plan for an inland refinery: Petroleum Economist, v. 80, no. 9, November, p. 36–37.
- Quinlan, Martin, 2013b, Uganda's oil slides to 2018: Petroleum Economist, v. 80, no. 9, November, p. 36.
- Quinlan, Martin, 2014, East African products pipeline firms up: Petroleum Economist, v. 81, no. 2, March, p. 42–43.
- Republic of Uganda, 1996, Opportunities for mining investment: Kampala, Uganda, Republic of Uganda, 56 p.
- Starfield Metals Ltd., 2014, Right deposit, right place, right time: Starfield Metals Ltd., 19 p. (Accessed May 20, 2015, at http://www.starfieldmetals.com.au/pdf/Starfield_Presentation_July_2014.pdf.)
- Tentena, Paul, 2014, New phosphates project for Uganda during 2016: East African Business Week, August 24. (Accessed May 20, 2015, <http://www.busiweek.com/index.php/index1.php?Ctp=2&pl=1720&plv=3&rl=54&spI=100&cl=11>.)
- Uganda Bureau of Statistics, 2015, 2015 statistical abstract: Kampala, Uganda, Uganda Bureau of Statistics, 330 p.

Uganda Investment Authority, 1997, Mining sector profile: Kampala, Uganda, Uganda Investment Authority, 12 p.
 Uganda Ministry of Energy and Mineral Development, 2014, 52nd independence anniversary message: Uganda Ministry of Energy and Mineral Development. (Accessed May 27, 2015, at <http://www.energyandminerals.go.ug/downloads/Sector%20achievements%20and%20progress.pdf>)

Uganda Ministry of Energy and Mineral Development, 2015, 2014 statistical abstract: Kampala, Uganda, Uganda Ministry of Energy and Mineral Development, 105 p.
 Wass, Gabriella, and Musiime, Chris, 2013, Business, human rights, and Uganda's oil part I: Uganda's oil sector and potential threats to human rights (updated October 2013): Antwerp, Belgium, International Peace Information Service, 37 p.

TABLE 1
 UGANDA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2010	2011	2012	2013	2014
METALS					
Cobalt, refined	624	661	556	376	--
Gold:					
Mine, Au content kilograms	4	1	4 ^r	5 ^r	20
Refined ^c do.	380 ^r	230 ^r	250 ^r	160 ^r	--
Iron and steel:					
Iron ore, gross weight	3,795	2,134	4,431	2,282 ^r	41,959
Steel, crude ^c	59,000	65,000	60,000	64,000	67,000
Lead, refined ^c	800	800	800	800	800
Niobium (columbium) and tantalum, ore and concentrate:					
Gross weight kilograms	10	10 ^c	--	--	--
Nb content ^c do.	1	1	-- ³	-- ³	-- ³
Ta content ^c do.	1	1	-- ³	-- ³	-- ³
Tin, mine output, Sn content	32	--	--	18 ^r	31
Tungsten, mine output, W content	55	10	24 ^r	41 ^r	45
INDUSTRIAL MINERALS					
Aggregate, syenitic	14,338	9,765	20,472	109,906	64,604
Cement, hydraulic	1,347,327	1,666,235	1,780,000	2,023,000	2,141,000
Clay:					
Brick ^c	54,000	62,000	54,000	47,000	52,000
Kaolin	27,237	20,883	42,886	43,875	46,286
Lime ^c	170,000	170,000	180,000	180,000	180,000
Limestone	634,674	932,348	936,264	922,372	1,090,240
Marble	--	--	--	10,000	--
Pozzolan material	446,316	690,911	650,324	623,471	742,423
Salt ^c	15,000	15,000	15,000	15,000	15,000
Vermiculite	2,475	8,426	11,251	243	--

^cEstimated; estimated data are rounded to no more than three significant digits. ^rRevised. do. Ditto. -- Zero.

¹Table includes data available through December 3, 2015.

²In addition to the commodities listed, corundum, sand and gravel, silica sand, and soapstone were thought to be produced, but available information is inadequate to make reliable estimates of output.

³Reported figure.

TABLE 2
UGANDA: STRUCTURE OF THE MINERAL INDUSTRY IN 2014

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Cement		Tororo Cement Ltd.	Plant at Tororo	2,200,000.
Do.		Hima Cement Ltd. (Bamburi Cement Ltd., 70%)	Plant at Kasese	850,000.
Clay, kaolin		Muhindo Enterprises Ltd.	Mine in Buhweju District	50,000. ^c
Cobalt, refined		Kasese Cobalt Company Ltd. (KCCL) (MFC Industrial Ltd., 75%, and Government, 25%)	Plant at Kasese ¹	720.
Gold:				
Mine, placer	kilograms	Artisanal miners	Mines in Ntungamo District	NA.
Refined	do.	Victoria Gold Star Ltd.	Plant at Kampala	14,000.
Iron ore		Uganda International Mining Co. Ltd.	Kanungu District	NA.
Lead, refined secondary		Uganda Batteries Ltd.	do.	1,000.
Lime		Small-scale producers	Various locations including Kasese and Tororo Districts	180,000. ^c
Limestone		Hima Cement Industries Ltd.	Mines in Kamwenge and Kasese Districts	800,000. ^c
Do.		Tororo Cement Industries Ltd.	Mines in Bududa, Moroto, and Tororo Districts	150,000. ^c
Do.		Kilembe Mines Ltd.	Kasese District	NA.
Pozzolanic material		Tororo Cement Industries Ltd.	Kapchorwa District	350,000. ^c
Do.		Hillmarks Ltd.	Kabarole District	NA.
Do.		Seahorse International Ltd.	do.	NA.
Do.		X4 Ltd.	do.	NA.
Do.		Artisanal miners	do.	NA.
Salt		do.	Lake Katwe	15,000.
Soapstone		African Minerals Ltd.	Mine in Moroto District	NA.
Steel: ²				
Crude		Steel Rolling Mills Ltd. (subsidiary of Alam Group Ltd.)	Plant at Jinja	70,000.
Do.		Steel Corp. of East Africa Ltd. (subsidiary of Madhvani Group)	do.	24,000.
Do.		Tembo Steel Ltd.	Plant at Iganga	12,500.
Do.		do.	Plant at Lugazi	9,000.
Rolled		Steel Rolling Mills Ltd.	Plant at Jinja	50,000.
Do.		Steel Corp. of East Africa Ltd.	do.	30,000.
Do.		Tembo Steel Ltd.	Plant at Iganga	10,000.
Do.		do.	Plant at Lugazi	9,000.
Tin		Starfield Metals Ltd.	Western Region	75. ^c
Tungsten content of wolframite		Krone Uganda Ltd.	Bjoldal Mine in Kabale District	240 wolframite; 120 tungsten.
Vermiculite		Gulf Industrials Ltd.	Namekara Mine in Manafwa District ¹	30,000.

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

¹Not operating at the end of 2014.

²In 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.