



2012 Minerals Yearbook

LESOTHO AND SWAZILAND

THE MINERAL INDUSTRIES OF LESOTHO AND SWAZILAND

By Harold R. Newman

LESOTHO

Lesotho's mining and quarrying sector did not play a significant role in the country's gross domestic product and, with the exception of diamond, the sector was only a marginal contributor to the economy. Exploration and production of the mineral resources of Lesotho were concentrated mainly on diamond. Other mineral resource activities continued to be limited in 2012 owing to the lack of infrastructure and investment in the mineral industry (Ministry of Natural Resources, 2012).

The Department of Mines and Geology within the Ministry of Natural Resources is responsible for gathering, assessing, and disseminating information related to the country's mineral resources and the mineral industry. Laws that form the regulatory framework for the mineral industry include the Mines and Minerals Act 2005, which provides for the administration of mineral exploration and regulation of the different types of licenses and conditions for mineral development, and the Precious Stones Order 1970, which regulates the export, production, and trade of rough precious stones, such as diamond, and sets the conditions and penalties when dealing in rough diamond. Lesotho is a member of the Kimberley Process Certification Scheme. The Mine Safety Act 1981 contains safety, health, and environmental regulations pertaining to the mineral industry (Ministry of Natural Resources, 2012).

Production

Lesotho has a history of diamond production, and diamond was the major economic mineral of Lesotho. Artisanal miners produced small amounts of agate, clay, sand and gravel, and stone (both crushed and dimension) for domestic consumption. Such mineral production, however, was not reported. Data that were available on mineral production are in table 1.

Structure of the Mineral Industry

Table 2 is a list of mineral processing facilities, their locations, and their capacities.

Commodity Review

Industrial Minerals

Diamond.—Lesotho's diamond mining industry was revived with the reopening of the diamond mines about a decade ago, and diamond production had continued to increase since mining was restarted. The country had five major mines; the Letseng and the Lihobong Mines were in operation, and the Kao, the Kolo, and the Mothae Mines were under development.

Lesotho had the world's densest concentration of kimberlites, consisting of 33 pipes, of which 24 were diamondiferous. The diamond industry's contribution to Lesotho's economic growth had increased from a minimal amount in 2000 to about 4% in 2012. The industry was pivotal in increasing the Government's export earnings, and it also contributed to employment (Central Bank of Lesotho, 2012).

Firestone Diamonds plc of the United Kingdom acquired a 75% interest in the Lihobong Mine from Kopane Diamond Development plc of the United Kingdom in 2010. Firestone Diamonds reported that mining of the K2, the K4, and the K5 ore deposits was continuing as the Main Pipe open pit and the pit benches were developed and regular blasting was undertaken in 2012. The K5 unit was the highest grade geologic unit in the Main Pipe resource; it contained an average resource grade of 45 carats per hundred metric tons compared with the average resource grade of 28 carats per hundred metric tons for the K2 and the K4 units. The recovery of three 100-carat broken diamonds was encouraging for continued mining. The K5 unit was planned to be the primary focus for mining operations in 2014 and 2015 (MBendi Information Services (Pty) Ltd., 2012a).

Gem Diamonds Ltd. of the United Kingdom owned 70% of the Letseng Mine in partnership with the Government, which owned the remaining 30%. The Letseng Mine which is located in the Maluti Mountains at an altitude of about 3,100 meters (m) above sea level, was the highest diamond mine in the world. Gem Diamonds continued to be the world's leading source of exceptionally large diamonds. Gem Diamonds reported that, in the final quarter of 2012, it had recovered 46 rough diamonds at Letseng that were worth more than \$20,000 per carat and that a total of 184 diamonds were produced in 2012. Gem Diamonds sold the world's 14th largest diamond for \$16.5 million in 2011 (Els, 2012).

Lucara Diamond Corp. of Canada reported the results of the Mothae Mine diamond sale in the last quarter of 2012. A total of 4,657 carats of diamond were sold for gross proceeds of \$1.5 million, which yielded an average price of \$324 per carat. The sale completed the trial mining program on the Mothae project. The Mothae project was placed on care-and-maintenance status as Lucara continued with work to complete a Preliminary Economic Assessment (PEA). The PEA, together with a National Instrument 43-101 technical report, would be completed before the development of the Mothae project (MBendi Information Services (Pty) Ltd., 2012b).

Paragon Diamonds Ltd. of the United Kingdom's Lemphane project is one of the five known diamondiferous kimberlite pipes in the region and the only one that had not undergone any historic mining activity. In 2012, Paragon Diamonds prepared and mined more than 27,000 metric tons (t) of samples of kimberlite material across a 6-hectare-surface-area kimberlite

pipe at the Lemphane project. The kimberlite samples were transported to the processing plant site and placed in a stockpile area. An additional 6,500 t of planned samples remained to be mined, after which the total mined material would be processed for diamond content (African Mining, 2012).

Outlook

The outlook for Lesotho's mineral industry overall is for no significant change owing to limited investment in the mineral sector. Diamond production in Lesotho, however, is likely to increase as the two new mines (Kao and Kholo) are developed and start production. The economic situation of the country is expected to improve when these developments are completed and come onstream. The high rates of HIV/AIDS infection among Lesotho's population will continue to hinder economic development in the foreseeable future.

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SWAZILAND

Mining has declined in importance in Swaziland, and the mineral industry was not a significant contributor to the country's gross domestic product in 2012. Information on the mineral industry of Swaziland was not readily available.

The geology of Swaziland is dominated in the western and central parts of the country by Precambrian (Archean) units belonging to the Swaziland and the Pongola Supergroups and younger Neo-Archean granitoid intrusive suites located at the eastern edge of the Kaapval craton. In the eastern part of the country along the border with Mozambique, the basement rocks are overlapped by the volcano-sedimentary Karoo sequence. The oldest known unit is probably the Ngwane gneiss (EI Sourcebook, 2012).

The provisions of the Diamond Act No. 3, the Explosive Act, the Mines and Minerals Act No. 4 of 2011, and the Mines and Quarries Regulations govern the mineral sector in Swaziland. The Mining Department is responsible for the administration and enforcement of provisions regarding the mineral sector. The Department's mandate also includes the enforcement of the terms and conditions of mineral leases and rights issued through the Minerals Management Board for mining, prospecting,

and reconnaissance. A special coal unit is in charge of all coal exploration (Swaziland Review, 2012, p. 3).

Production

In 2012, coal was produced from Maloma Colliery Ltd.'s Maloma Mine. The Maloma Mine was Swaziland's only active coal mine in 2012. Roux Consolidated Investments Ltd. of South Africa's Dvokolwako diamond mine was expected to reopen in 2014. The Dvokolwako Mine had been closed since 1997. Production of other minerals, such as asbestos and diatomite, had ceased owing to low ore grades and limited reserves. Also, the country had gold, kaolin, manganese, nickel, silica, and talc deposits; however, the economic viability of these resources had not been determined, and no mineral-related activities took place in 2012 (Commonwealth of Nations, 2012).

Structure of the Mineral Industry

The principal mining and mineral processing facilities in Swaziland, with their locations and capacities, are in table 2.

Commodity Review

Interest in diamond was revived when the Government announced that it could possibly reopen the Dvokolwako Mine by 2014 or 2015. The Government was approved for participation in the Kimberley Process Certification Scheme. The gold mineralization in northwestern Swaziland also received new attention in 2012 after the announcement by the Ministry of Natural Resources and Energy that the dormant mine at Piggs Peak was listed as a site to be reopened in the near future. Salgaocar Swaziland (Pty) Ltd. of India continued to reclaim the iron ore dumps at the Ngwenya Mine. The silica and talc sites remained unlisted as they had been subjected only to preliminary investigations. The Maloma Colliery, which is located 25 km west of Nsoko, had three operational shafts. The Maloma Mine produced anthracite coal in three forms for the ferroalloys industry (Swaziland Review, 2012).

Transnet SOC Ltd. of South Africa and Swaziland Rail Corp. announced that they were proceeding with the railway project between Lothair, South Africa, and Sidvokodvo, Swaziland, which was projected to cost 17 billion South African rand (ZAR) (US\$1.7 billion¹). The line was scheduled to be commissioned in 2016 and would have the capacity to transport 15 million metric tons per year (Mt/yr) of freight. The 146-km line would divert general freight haulage, which would increase the capacity of South Africa's coal haulage from Mpumalanga to the Richards Bay Coal Terminal (RBCT) to about 100 Mt/yr. The RBCT had about 92 Mt/yr of coal capacity in 2011 (Creamer, 2012).

Outlook

The outlook for Swaziland's mineral industry is for little change unless the proposed reopening of the diamond and gold mines happens during the next several years. The low level of

¹Where necessary, values have been converted from South Africa rand (ZAR) to U.S. dollars (US\$) at an average rate of ZAR10.29=US\$1.00.

exploration and exploitation and the high level of HIV/AIDS infections and the lack of infrastructure were expected to continue to constrain mineral resource development and production. Given Swaziland's limited natural resources, growth prospects will depend on increased investments in value-added manufacturing and in services.

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TABLE 1
 LESOTHO AND SWAZILAND: PRODUCTION OF MINERAL COMMODITIES¹

Country and commodity		2008	2009	2,010	2011 ^e	2012 ^e
LESOTHO ²						
Diamond	carats	253,053	91,815	100,000 ^e	100,000	478,926 ³
Fire clay ^e	cubic meters	15,000	15,000	14,000	12,000	15,000
SWAZILAND ⁴						
Coal, anthracite	metric tons	174,807	129,647	145,903	121,050 ³	152,284 ³
Clay, bricks	cubic meters	35,000	35,000	35,535	35,584 ³	36,000
Ferrovandium ^e	metric tons	500	500	500	300	400
Iron ore	do.	NA	NA	NA	79,553 ³	1,032,230 ³
Stone, quarry products	cubic meters	240,997	202,319	304,544	206,341 ⁵	308,440 ³

^eEstimated; estimated data are rounded to no more than three significant digits. do. Ditto. NA Not available.

¹Table includes data available through November 30, 2013.

²Reported data from Lesotho Department of Mines and Geology.

³Reported number.

⁴In addition to the commodities listed, modest quantities of crude construction materials (sand and gravel), kaolin, pyrophyllite (talca), and soapstone are produced, but output is not reported quantitatively and information is inadequate to make reliable estimates of output.

⁵Reported production is for the last quarter (October to December 2011).

TABLE 2
 LESOTHO AND SWAZILAND: STRUCTURE OF THE MINERAL INDUSTRY IN 2012

(Metric tons unless otherwise specified)

Country and commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
LESOTHO				
Diamond	carats	Gem Diamond Ltd., 70%, and Government 30%	Letseng Mine, northern Lesotho	100,000
Do.	do.	Firestone Diamonds plc, 75%, and Government, 25%	Liqhobong Mine, northern Lesotho	77,000
Do.		Lucara Diamond Corp.	Mothae Mine, ¹ northern Lesotho	60,000
SWAZILAND				
Coal		Maloma Colliery Ltd.	Maloma Mine at Maloma	500,000
Ferrovandium		Swazi Vanadium (Pty) Ltd. (Xstrata plc, 75%, and Tibiyo Taka Ngwana, 25%)	Plant at Maloma	2,400

Do., do. Ditto.

¹On care-and-maintenance status in 2012.