



2009 Minerals Yearbook

CAMBODIA

THE MINERAL INDUSTRY OF CAMBODIA

By Yolanda Fong-Sam

In 2009, Cambodia produced mainly industrial minerals. These included sand and gravel and crushed stone for domestic consumption by the construction industry, and limestone for cement production.

Government Policies and Programs

The Ministry of Industry, Mines and Energy (MIME), which implements Cambodia's mineral law and policy, is the Government entity that leads the effort in promoting and developing the industrial sector in the country. The Department of Geology and Mines and the Department of Energy, which are both under the MIME, coordinate the development of the mineral sector. The Council for the Development of Cambodia is the Government agency that grants exploration licenses and mining licenses to investors. The mining licenses are granted if exploration is successful; a mining project plan or proposal is required as a condition for acquiring such a license (Investincambodia.com, 2009).

Production

During 2009, the Department of Mineral Resources of Cambodia (which is also under the MIME) reported an increase in production of most mineral commodities. Production of sand used as construction material more than doubled to more than 14 million metric tons (Mt) in 2009 from about 6.6 Mt in 2008. In 2009, the production of laterite increased by 38.8% to 631,000 metric tons (t) from 454,750 t in 2008; production of stone used for construction materials increased by 38% to 2.82 Mt from 2.04 Mt in 2008; and production of gravel increased by 11.7% to 41,875 t from 37,500 t in 2008 (table 1).

Structure of the Mineral Industry

Exploration of Cambodia's mineral resources had increased during the past several years as a result of the efforts of the Government to increase foreign investment in the country by heavily promoting its underexplored mineral resources. Also, as part of the Government's investment policy, foreign investors are allowed a 100% ownership of their mining investments in the country. In 2009, polymetallic exploration was carried out by OZ Minerals and Southern Gold Ltd. of Australia, Japan Oil, Gas, and Metals National Corp. (JOGMEC) of Japan, and KenerTec Resources Co., Ltd. of the Republic of Korea, among others. Table 2 is a list of major mineral industry facilities.

Commodity Review

Metals

Gold.—OZ Minerals owned several exploration projects in Cambodia. The most advanced was the Okvau gold project, in

which OZ Minerals held an 80% interest and where extensive exploration that included geologic mapping and surface sampling and drilling had identified a gold mineralized system within the 440-square-kilometer (km²) tenement area. The company expected to identify potential undiscovered resources of at least 2 million troy ounces of gold in the Okvau project area by 2010 (OZ Minerals, 2010a, p. 15; 2010b).

In 2009, Southern Gold held a total of seven exploration licenses in several eastern Provinces of Cambodia. Three of them were held in joint-venture agreements with JOGMEC, and the remaining four were wholly owned by Southern Gold. The joint-venture agreements were signed in 2008 and included an expenditure commitment by JOGMEC of \$4.5 million during a period of 3 years for the exploration of gold and base metals. The agreement would earn JOGMEC a 51% interest in three tenements, all of which are located northeast of Phnom Penh: Phnum Khtong in the Kratie North project and two adjoining blocks—O'Kthung and Preak Khlong—in the Kratie South project. Plans for Southern Gold's projects in 2009-10 included further drilling and soil sampling and trenching in areas previously identified to contain copper, gold, lead, and silver mineralization (Southern Gold Ltd., 2009, 2010).

Iron Ore.—In 2009, a feasibility study for the Rovieng iron ore project was completed; a specific date for the development of the mine was not announced. The Rovieng project (in which KenerTec Resources held an 85% interest and Ratanak Stone Development held a 15% interest) is located in Preah Vihear Province in northern Cambodia. Licenses for other projects held by KenerTec Resources in Cambodia included the right to explore and develop various mines in the northern part of the country, which included two copper-zinc mines, three iron-manganese mines, and three gemstone mines; exploration rights for all the mines were granted to KenerTec Resources in 2007 by the MIME (KenerTec Resources Co., Ltd., 2007; KenerTec Cambodia Resources Co., Ltd., 2010).

Industrial Minerals

Cement.—Cambodia's first major cement plant, which is located in Kampot Province, was commissioned in 2008. The Kampot Cement Co. plant was a joint venture between Siam Cement Group of Thailand (90%) and Khaou Chuly Group (10%). In 2008, Kampot Cement announced a plan to double the plant's cement production capacity in 2009 and again in 2010; however, after analyzing the construction sector's performance and the demand for building materials in the country in 2009, the company decided to delay the expansion plans until 2012. The planned expansions would increase the plant's capacity output to 2 million metric tons per year (Mt/yr) of cement at a cost of \$100 million (Phnompenhpost.com, 2009).

In 2009, Phi Cham Mining Corp., which was a joint venture between Paul Cham Group of Cambodia and Phi Mining Group Inc. of the United States, announced its plans to build a cement

plant at a cost of \$51 million. The proposed plant would have a production capacity of 1 Mt/yr and was to be located in Stung Treng Province in northern Cambodia (Building Bulletin, 2009).

Mineral Fuels

Natural Gas and Petroleum.—Chevron Corp. of the United States announced in late 2008 that it intended to bring Cambodia's first oilfield onstream. The oilfield, Block A, was discovered in 2005 and is located 200 kilometers offshore in the Gulf of Thailand. During 2009, Block A was under commercial evaluation based on previously identified prospects. The Government granted the company an extension to the exploration period for Block A until the third quarter of 2010 in exchange for the commitment to drill three exploration wells. In November 2009, Chevron requested a farmout for Block A, which was pending Government approval as of the beginning of 2010. Under the farmout agreement, Chevron would operate and hold a 30% interest Block A, which covers 4,709 km². In addition to Block A, Chevron also held operational interests of between 30% and 80% in Blocks 5 and 6 and Blocks 10 through 13 and nonoperational working interests of 33.3% in Blocks 7 through 9. By yearend 2009, activity in all the Blocks (with the exception of Block A) had been suspended pending resolution of maritime boundary disputes between Cambodia and Thailand because the Blocks are located in the Cambodia-Thailand overlapping claim zone (Chevron Corp., 2010a, p. 24-25; 2010b, p. 2).

Outlook

The mineral industry of Cambodia is likely to continue to be dominated by the production of industrial minerals. Exploration for metals is expected to increase in the near future as a result of recent gold and base-metal mineralization reported by OZ Minerals and Southern Gold. Cement production in the near future would most likely maintain the 2009 production levels

as a result of a slowdown in the construction sector and the decrease in the demand for construction materials in the country. Kampot Cement expects to double its annual cement output capacity to 2 Mt/yr by 2012, although the expansion will be dependent on the performance of the construction sector.

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TABLE 1
CAMBODIA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons)

Commodity ²	2005	2006	2007	2008	2009
Cement	--	--	86,990	772,029	774,305
Gravel	22,500	45,625	36,250	37,500 ^c	41,875
Laterite, blocks	--	--	312,718	454,750	631,000
Salt	--	59,000	76,651	78,000 ^c	NA
Sand, construction material	763,900	2,043,500	329,028	6,581,500	14,035,790
Stones:					
Crude construction material	1,079,400	676,832	1,433,086	2,039,336	2,819,817
Limestone ^c	--	--	1,000,000	1,000,000	1,000,000

^cEstimated; estimated data are rounded to no more than three significant digits. NA not available. -- Zero.

¹Table includes data available through October 25, 2010.

²In addition to the commodities listed, clay, gemstones, gold, and iron ore are presumably produced, but available information is inadequate to make reliable estimates of output.

Source: Cambodia's Ministry of Industry, Mines and Energy, General Department of Mineral Resources; U.S. Geological Survey Minerals Questionnaires for Cambodia 2005-09.

TABLE 2
CAMBODIA: STRUCTURE OF MINERAL INDUSTRY IN 2009

(Thousand metric tons)

Commodity	Main operating companies and main equity owners	Location of main facilities	Annual capacity ^c
Cement	Kampot Cement Co. Ltd. (a joint-venture between Siam Cement Group of Thailand, 90%, and Khaou Chuly Group, 10%)	Touk Meas District, Kampot Province	1,000
Gemstones	Jirech International Cambodia Construction and Import-Export Co. Ltd.	Anlong Krapeu-Preak Bey, Samlot District, Batdambang Province	NA
Do.	Seoul Digem Cambodia Co. Ltd.	Loamphat District, Ratanah Kiri Province	NA
Do.	Sonuba Cahm Industries Co. Ltd.	Phnom Trop, Pailin City	NA
Do.	Ultra Marine Kiri (Cambodia) Ltd.	Pating Thom Village, Ting Chak Commune, Borkeo District, Ratanah Kiri Province	NA
Do.	do.	Sen Chauv, Samlot District, Batdambang Province	NA
Granite	TTY-RITHYMEXICO	Svay Chreas District, Kracheh Province	NA
Limestone	Kampot Cement Co. Ltd.	Tatung, Kampot Province	1,500
Do.	Thai Boon Roon Cement Co. Ltd.	Phnom Laang Laan Commune, Donghtung District, Kampot Province	NA
Do.	United International (Cambodia) Foreign Investment Group Co. Ltd.	East Touk Meas, Banteay Meas District, Kampot Province	NA

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