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The Mineral Industry of Sri Lanka

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Sri Lanka is endowed with a variety of mineral resources, such as feldspar, clays (including ball clay and kaolin), dolomite, graphite, limestone, mica, mineral sands (including ilmenite, rutile, and zircon), phosphate rock, quartzite, and salt. Sri Lanka is known for its unique type of graphite, which is called vein graphite. The mineral-processing industry produced cement, lead (secondary), iron and steel, and semimanufactures (table 1).

Minerals in the National Economy

In 2014, the real gross domestic product (GDP) increased by 7.4% compared with 7.2% (revised) in 2013 owing to increases in domestic consumption and investments in construction. In 2014, the industrial sector grew by 11% compared with a rate of growth of 9.9% in 2013, and the value of the sector's output accounted for 32% of the GDP compared with 31% (revised) in 2013. Within the industrial sector, the value of mining and quarrying increased by 11% in 2014 compared with an increase of 11.5% in 2013 and accounted for 3.0% of the GDP. In 2014, 79,000 workers (1.0% of the country's population) were employed in the mining and quarrying sector compared with 100,000 workers (1.2% of the country's population) in 2013 (Central Bank of Sri Lanka, 2015a, p. 1, 4; 2015b, p. 94).

Government Policies and Programs

In 2014, the Sri Lanka Exports Development Board said that its goal was to make Sri Lanka a Ceylon Blue sapphires hub by identifying and tendering new gemstone-bearing lands, eliminating unnecessary restrictions and duties for mining companies, and promoting the sapphires. In 2013, the Ministry of State Resources and Enterprise Development was tasked with increasing the profitability of unprofitable and low-profitability state-owned enterprises, such as Lanka Cement Co. Ltd., Lanka Mineral Sands Co. Ltd., Lanka Phosphate Co. Ltd., and Sri Lanka Cement Corp. In 2013, Lanka Mineral Sands Co. and Lanka Phosphate Co. had low profits, and Sri Lanka Cement and Lanka Cement Co. each ran at a loss. The renovations at Lanka Mineral Sands included the installation of new technologies for processing mineral sands at the Pulmoddai factory and the startup of a new factory in Yan Oya. The renovations at the Lanka Phosphate facility included the installation of a new grinding machine for grinding phosphate rock and the installation of a triple superphosphate plant (Ministry of State Resources and Enterprise Development, 2013, p. 17, 19–20; Lanka Business Online, 2015; Sri Lanka Gem and Jewellery Association, 2015).

In June 2013, Sri Lanka's Cabinet of Ministers developed a plan to ban new foreign investments in steelmaking and cement manufacturing, retail trade, and small-scale agriculture to protect domestic investors. The ban did not affect existing investors in these sectors. The Government continued to seek foreign investment in petroleum product refining, shipbuilding, and vehicle manufacturing. In 2014, Sri Lanka offered cement manufacturers and steel industries a 5-year tax holiday followed by a concessionary tax rate of 12% with minimum investment (Lanka Business Online, 2013; U.S. Department of State, 2015, p. 15).

The Government offered tax incentives and imposed fewer regulations on Chinese investors to encourage investment in upgrading Sri Lanka's mining and mineral-processing sectors and developing infrastructure and powerplants. The Government targeted foreign investment for development of the domestic downstream graphite-processing industry, mainly for value-added products. Current investment, mainly from China, was focused on mineral and metal projects other than graphite. A downstream graphite-processing industry was expected to increase tax revenues and jobs, stimulate infrastructure development, and offer other benefits (Salwan, 2013, p. 11; Syrett and Ollett, 2013, p. 19; Wallop, 2013).

Production

In 2014, production of salt increased by 176%; zirconium, 164%; gemstones, 36%; rutile, 28%; lead (secondary), 20%; and limestone, 7%. The production of phosphate rock decreased by 27%; Hi-ilmenite and petroleum refined products, 26% each; ilmenite, 22%; and clay for cement manufacture, 8% (Department of Census and Statistics, 2014, p. 40–41). Data on mineral production are in table 1.

Structure of the Mineral Industry

Table 2 is a list of major mineral industry facilities.

Mineral Trade

The total value of exports and imports in 2014 was $30.3 billion. Exports increased by 7% and totaled $11.0 billion in 2014 compared with $10.3 billion in 2013, and imports increased by 9% and totaled $19.3 billion in 2014 compared with $17.7 billion (revised) in 2013. In 2014, the value of exports of precious and semiprecious stones increased by 34.7%, and the total value of exports of diamond decreased by 32.1%. The value of mineral exports increased by 29.3%. The mineral commodities exported were gemstones, 12.6 million carats; ilmenite, 20,594 metric tons (t); rutile, 1,999 t; and zircon 1,401 t. Sri Lanka's main export partners were the United States (which received 24.4% of Sri Lanka's exports), the United Kingdom (10.0%), India (5.6%), Italy and Germany (4.5% each), and Russia (2.5%) (Department of Census and Statistics, 2014, p. 2, 32–33, 40).

In 2014, the value of fertilizer imports increased by 15% and the value of petroleum imports increased by 4.8% compared with the values in 2013. Petroleum products accounted for 15%

of total imports; crude oil, 7.4%; and fertilizer, 1.4%. Sri Lanka's main import partners were India (which supplied 20.4% of Sri Lanka's imports), China (17.6%), the United Arab Emirates (9.0%), Singapore (6.5%), Japan (4.8%), and Malaysia (3.7%) (Department of Census and Statistics, 2014, p. 30, 32–33).

Commodity Review

Metals

Lead.—Navam Lanka Ltd., which was the country's sole producer of lead ingot, was 52% owned by Gravita India Ltd. of India through its subsidiaries Gravita Infotech Ltd. (formerly Gravita Exim Ltd.) of India (40%) and Gravita Netherlands B.V. of Australia (12%). In 2014, Gravita Netherlands acquired a 40% stake in Gravita Infotech. In 2014, Navam Lanka produced 4,528 t of secondary lead ingots compared with 3,762 t (revised) in 2013 (Gravita India Ltd., 2015, p. 17).

Titanium and Zirconium (Mineral Sands).—In 2014, Lanka Minerals Sands Co. Ltd., which was a state-owned company, decreased its production of ilmenite owing to a decrease in the international market price to $92 from $320. In order to adjust to international price fluctuations, Lanka Mineral Sands Co. increased production of rutile to 1,800 metric tons per year (t/yr) and zircon to 600 t/yr owing; the international market price of rutile was $700 per metric ton, and that of zircon was $850 per metric ton. The company mined and processed heavy minerals from beach sands and exported the heavy minerals to Japan, Russia, the United Kingdom, and the United States. In 2014, the processing plant, which was located in Pulmoddai on the eastern coast of Sri Lanka, was upgraded and modified; however, owing to a shortage of employees and other facilities, the plant could not operate at its full capacity (Sirimanna, 2014).

Iluka Resources Ltd. of Australia (Iluka Resources) reached an agreement to acquire PKD Resources (Pvt.) Ltd. and four associated mineral-sand tenements and to explore mineral-sand deposits in Puttalam District in North Western Province. The tenements of Iluka Resources in Sri Lanka covered an area of 224 square kilometers (km^2). The total resources were estimated to be 688.1 million metric tons (Mt) (213.9 Mt of measured, 69.9 Mt of indicated, and 404.3 Mt of inferred resources) at an average grade of 8.2% heavy minerals. Ilmenite is the major mineral (in terms of content), with a grade of up to 67%, and rutile and zircon graded up to 4%. Regulations require limiting the percentage of ownership that a foreign company can hold to 40%, although approval for up to 100% ownership could be granted. The company had been granted three other tenements in the area with a combined mineral-sand resource of 56 Mt of heavy minerals, including 37 Mt of ilmenite, 2 Mt of rutile, and 1.9 Mt of zircon. Ilmenite contained in the deposits was suitable as a feedstock for sulfate-route titanium dioxide pigment production. The company also developed acid-soluble synthetic rutile, which could be sold as a high-grade feedstock for the sulfate pigment sector. As of 2014, Iluka Resources continued exploration activities in order to increase its resources and to evaluate the resources for development of a large ilmenite mining operation and sulfate-route processing operations as well as additional investments. In 2014, the company drilled up to 2,000 meters (m) in the Puttalam deposit to confirm historical drilling results and to collect samples for mineralogical testing. Iluka Resources continued to discuss the investment agreement with the Government; the scoping study stage was expected to start in 2015 (Iluka Resources Ltd., 2012; 2013, p. 1, 5; 2014, p. 25, 28–29, 159).

Industrial Minerals

Cement.—Cement production decreased by 2% to 1.89 Mt in 2014 from 1.93 Mt (revised) in 2013 (table 1). Holcim (Lanka) Ltd. privatized the cement plant in Puttalam in 1996. Since then, the workforce at the plant had been cut from 1,500 to 900, of which 370 were permanent workers. In May 2014, 500 contractors at the Holcim plant in Puttalam and a grinding unit in Galle were on strike. The workers demanded permanent jobs, higher wages, and better working conditions. Protesters blocked the main gates at the Puttalam plant, which prevented the transport of cement. The demands of the contractors were not met (Global Cement, 2014; International Global Cement Review, 2015).

In 2013, Tokyo Cement Co., which was a partnership between Nippon Coke and Engineering Co. (formerly Mitsui Mining Co. Ltd.) of Japan and Saint Anthony's Consolidated, planned to build a cement plant (Tokyo Eastern Cement) with a production capacity of 1 million metric tons per year (Mt/yr) at Trincomalee in Eastern Province at an estimated cost of $50 million. The project was to include the construction of a 100-megawatt-capacity biomass-burning powerplant. In 2014, a resolution by the Board of Directors of Tokyo Cement Co. was passed, indicating that a subsidiary of Tokyo Cement Co. (Lanka) Plc—Fuji Cement Co. (Lanka) Ltd. Plc—would merge with Tokyo Cement Co. (Lanka) Plc and retain the name Tokyo Cement Co. (Lanka) Plc. The companies were expected to merge in 2015 (Global Cement, 2013c, 2015).

Thatta Cement Co. (Pvt.) Ltd. (TCCPL) of Pakistan signed a 25-year agreement with the Sri Lanka Ports Authority (SLPA) to set up a cement-grinding and bagging plant at the Port of Hambantota. The total investment was $15 million, and the plant's capacity was expected to be 0.1 Mt/yr in the first year and later to increase to 0.3 Mt/yr. A second expansion, which was planned for later, was expected to increase the plant's capacity to 1 Mt/yr. In 2014, SLPA offered TCCPL a different location for the project, which TCCPL found unsuitable, and the land lease agreement between TCCPL and SLPA was not signed (Global Cement, 2013b; Thatta Cement Co. Ltd., 2015, p. 49).

The Ministry of State Resources and Enterprise Development planned to reopen a cement plant at Kankesanthurai in Northern Province. SLCC submitted a proposal to the Ministry to restart cement production at the Kankesan cement plant. SLCC planned to invest $11.4 million in renovating the entire 0.2-Mt/yr-capacity Kankesan cement plant in Kankesanthurai if SLCC was selected as the main cement supplier for the Northern Highway project. The plant had not been in operation since 1990 because of the security situation in the northern part of the country. In 2014, the Defense and Urban Development Ministry announced that it had acquired the Kankesanthurai cement plant in Jaffna (Global Cement, 2013a; 2015; Ministry of State Resources and Enterprise Development, 2013, p. 24).

Gemstones.—Sri Lanka is known for producing a variety of gemstones, including chrysoberyl, corundum, garnet, ruby, spinel, and tourmaline, and it remained one of the world's leading producers of Ceylon Blue sapphire. The best known areas for gemstone mining in Sri Lanka were Balangoda, Elahera, Kamburupitiya, Moneragala, Okkampitiya, and Ratnapura. In 2014, Gemfields plc. of the United Kingdom entered into a joint-venture agreement with East West Gem Investments Ltd. (EWGI) of Jersey [United Kingdom] to explore for sapphire and other gemstones through three Sri Lankan subsidiaries. According to the agreement, Gemfields acquired a 75% interest for $400,000 and EWGI held the remaining 25% interest in 16 exploration licenses. The companies also planned to create a gemstone trading company, Ratnapura Lanka Gemstones (Pvt) Ltd., that would trade rough sapphire (Geological Survey and Mines Bureau, 2012, p. 24; Brighouse, 2014; Business Wire, 2014; National Gem and Jewellery Authority, 2014; Thomson Reuters, 2014).

Graphite.—The deepest of Sri Lanka's high-carbon-grade occurrences were located at depths of between 400 and 600 m. In 2014, graphite was produced at the two largest graphite mines in Sri Lanka—the Bogala and the Kahatagaha Mines. The companies that operated graphite mines in Sri Lanka were Graphite Lanka Ltd. and Bogala Graphite Lanka Plc, which was a unit of AMG Mining AG (87%). In 2013, several companies, including Bora Bora Resources Ltd. (BBR) of Australia, MRL Corp. Ltd. of Australia, and Saint Jean Carbon Inc. of Canada entered into agreements to explore for and develop graphite in Sri Lanka (Geological Survey and Mines Bureau, 2012, p. 19; Ministry of Industry and Commerce, 2013, p. 2).

Bogala received approval to explore graphite deposits in a 56-km^2 area in Kaluthara (including Matugama) and the 33-km^2 area of Kegalle (including Galigamuwa, Kohombagahawatte, and Rangala), for a total area of 89 km^2. In 2013, Bogala faced electricity rate increases of 30% in April and royalty rate increases of 2% in November. In 2014, Bogala applied to the Sri Lanka Geological Survey and Mines Bureau for a mining license for the Rangala Mine, which is located 8 kilometers (km) southeast of the Bogala Mine and was wholly owned by Bogala. The cost of opening the mine had not been estimated yet (Bogala Graphite Lanka Plc., 2013, p. 6; 2014, p. 5; ColomboPage, 2013).

In 2013, Saint Jean Carbon Inc. (formerly Torch River Resources Ltd.), entered into an agreement with Han Tal Graphite (Pvt.) Ltd. of Sri Lanka for the acquisition of 113 lump-vein graphite mining claims at 56 historical mines and exploration and development licenses for a 113-km^2 area in southwestern Sri Lanka. The mines could be reactivated within 12 to 24 months following startup work that would include a resource estimate and an economic feasibility study. In 2014, Saint Jean Carbon announced that it had received conditional approval from TSX Venture Exchange to acquire 133 lump-vein graphite mining claims (Market Wired, 2013a, b; Saint Jean Carbon Inc., 2014).

In 2014, BBR entered into a binding Heads of Agreement with RS Mines (Pvt) Ltd. to acquire 50% of the Queens Graphite Mine at a cost of $66,097 (AUD$100,000)[1] and to conduct due diligence with respect to production at the Queens Graphite Mine and at the graphene oxide production facilities located 2 km north of the Kahatagaha Graphite Mine near Kurunegala-Kandy. In April, BBR acquired a 75% interest in tenements of the Matale vein-graphite project near Kandy; the remaining 25% was held by Sri Lanka's Esna Business Advisory Group. In addition to the Matale project, BBR acquired 100% of Plumbago Mining (Pty.) Ltd. as a part of the deal. Plumbago Mining held 75% of Plumbago Lanka (Pvt.) Ltd., which was the owner of a 24-km^2 area tenement in the Wanni Complex, as well as two other areas in the complex. The Matale-Kurunegala project covers a 32-km^2 area for which exploration licenses have been obtained and 109 km^2 for which exploration applications have been submitted. The project area surrounds a region that includes the three state-owned Kahatagaha-Kolongaha graphite mines. In November 2013, BBR conducted an Airborne Versatile Time-Domain Electromagnetic (VTEM) survey of the Matale-Kurunegala project. In March 2014, the results of the VTEM survey showed potential for mineralization containing 90% graphitic carbon and covering a 5-km^2 area at the Kingfisher prospect. The Kingfisher prospect, which is located 10 km north of the town of Melsiripura in central Sri Lanka, contained an old pit and workings from artisanal operations. The Paragoda north and south project covers 62 km^2 in central Sri Lanka. In 2014, the license for the Paragoda project was renewed for 2 years by the Geological Survey and Mines Bureau. During geologic mapping of the Paragoda project, 41 historic pits, 22 adits, and 19 shafts were identified. BBR planned to conduct an onground geophysical survey of its southern projects, which included the Ambalangoda, the Baduralia, and the Neluwa projects. The company was able to negotiate for a high percentage of foreign ownership under the Mining Act and to obtain a 12-year exemption from income tax and import duties (Bora Bora Resources Ltd., 2012, p. 7; 2014; 2015, p. 5–6; Asia Miner, 2013).

In October, MRL Corp. Ltd. (also known as MRF) (formerly Mongolia Resources Ltd. and Robe Australia Ltd.) of Australia reached an agreement through its subsidiary MRL Investment (Pvt.) Ltd. with Supreme Solutions (Pvt.) Ltd. to acquire a major share of MRL Graphite (Pvt.) Ltd. MRL Graphite held 45 exploration licenses for a high-potential graphite project that covers an area of 45 km^2 and includes the Hikkaduwa, the Palinda Nuwara, and the Warakapola areas. In 2014, MRL signed a drilling contract with the Geological Survey and Mines Bureau to drill at three locations in the Pandeniya-Bopitiya and the Warakapola areas. The first drill hole was in the Pandeniya area at intervals of 50 to 125 m. The second and third drill holes were to trays of vein graphite mineralization below the historical shafts and adits; the holes were 300 m deep. In 2014, MRF applied for an industrial mining license for the Pandeniya area. The mining operations were expected to start by the end of 2015 (Mongolian Resources Ltd., 2013a, p. 4; 2013b, p. 5; MRL Corp. Ltd., 2013; 2015, p. 5; Asia Miner, 2014).

In 2014, MRF was granted the Aluketiya mining license and the Pujapitiya project license for the area south of the

[1]Where necessary, values have been converted from Australian dollars (AUD) to U.S. dollars (US$) at an average exchange rate of AUD1.23=US$1.00 for 2014.

Kahatagaha-Kolongaha Mines, which included a graphite mine located at Meegahatenna in Walallawita District. The Pujapitiya project exploration license covered an area of 18 km^2. Based on information from the developed shafts, the geology of the Aluketiya Mine is composed of sillimanite-biotite granitic gneiss (garnet granitic gneiss) and charnockite. The graphite veins are Proterozoic age and were remobilized by volcanic events. Veins are from 50 to 70 m deep and from 30 to 50 m wide; graphite occurs in the form of needles and grades between 75% and 85% carbon. Chemical analyses of the two main graphite veins showed them to be from 95% to 99% carbon. The company proposed using a hand-held method to extract graphite in Aluketiya (MRL Corp. Ltd., 2015, p. 5–6).

Phosphate Rock.—In 2014, phosphate rock production decreased to 36,000 t owing to a phosphate rock shortage. State-owned Sri Lanka Phosphate Ltd. was the only company that mined phosphate rock in Sri Lanka and supplied it to the phosphorus fertilizer industry. Sri Lanka Phosphate was unable to meet domestic fertilizer demand owing to a supply delay caused in part by the need for repairs at its grinding mill (Cohen, 2014; Daily Mirror, 2014).

Salt.—In 2014, salt production increased by 176% compared with that of 2013. Salt was extracted from the Puttalam and the Bata-Atha salterns. The Kingdom of Raigam (a diverse group of companies incorporated in Sri Lanka) was planning to stop importing salt within the next 2 to 3 years. In 2014, the Bata-Atha salterns contributed to increased salt production owing to better weather conditions during the year. In 2013, the Kingdom of Raigam, in cooperation with smaller companies, invested $7.65 million (1 billion rupees)[2] to construct the country's largest salt refinery in Puttalam. The Kingdom of Raigam was expected to expand the pure vacuum-dry salt plant in Puttalam and to increase salt production at the group's three refineries to 500,000 t/yr by 2015 (Ceylon Today, 2013; Raigam Wayamba Salterns Plc., 2013, p. 7; 2015, p. 10).

Mineral Fuels

Petroleum.—Petroleum refinery production decreased by 26% in 2014 owing to a shutdown of the Ceylon Petroleum Corp.'s (CPC's) Sapugaskanda oil refinery in the second quarter of 2014 because of the failure of the crude oil buoy. Output from CPC's Sapugaskanda oil refinery satisfied one-third of the country's petroleum requirement. In 2012, the United States, European countries, and other countries imposed sanctions on Iran's energy and financial sectors. Countries agreed to stop purchasing oil from Iran. In 2013, owing to the sanctions, CPC stopped purchasing light crude oil and bitumen from Iran, and in 2014, CPC purchased crude oil from other sources. CPC faced challenges in finding an alternative crude oil mix. The blend consisting of 80% Abu Dhabi Murban and 20% Oman crude oil was suitable for the Sapugaskanda refinery; however, the mix was not economical and (or) practical because of the high price of Murban crude oil. Iran had been a major supplier of bitumen and oil for CPC. CPC also faced delays in completing the $1.5 million modernization of its Sapugaskanda oil refinery. The delays resulted in decreases in production and increases in the prices of refined oil products sold by the facility (Ministry of Petroleum Industries, 2013, p. 16, 20–21; 2014, p. 30, 65–66; Central Bank of Sri Lanka, 2014, p. 82).

In 2011, Cairn Lanka (Pty) Ltd. of Sri Lanka (a wholly owned subsidiary of CIG Mauritius Holdings (Pty) Ltd. of Mauritius, which in turn was a subsidiary of Cairn India Ltd. of India) discovered two gas and condensate basins in Mannar District. In 2013, the Petroleum Resources Development Secretariat conducted a second round of international offshore exploration licensing on 13 blocks in the Cauvery and Mannar Basins, which are located on the northeastern shallow continental shelf of Sri Lanka. In addition, six offshore ultradeepwater blocks from the southwest to the northeast were identified and were expected to be offered as a joint study. In 2014, Cairn Lanka planned to conduct a three-dimensional seismic survey to evaluate the potential of the Mannar Basin (Central Bank of Sri Lanka, 2014, p. 82; Cairn India Ltd., 2015, p. 9, 13).

Outlook

Sri Lanka's graphite production and mineral sands production are expected to increase owing to Government and foreign investment and company expansions. The country is expected to expand its gemstone production as a result of private investment and new exploration.

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TABLE 1
SRI LANKA: ESTIMATED PRODUCTION OF MINERAL COMMODITIES[1, 2]

(Metric tons unless otherwise specified)

Commodity[3]		2010	2011	2012	2013	2014
METALS						
Iron and steel, metal, semimanufactures		75,000	76,000	75,000	76,000	77,000
Lead, secondary[4]		1,000 r	2,000 r	2,100	3,762 r	4,528
Titanium mineral concentrates, gross weight:[4]						
Ilmenite		48,177 r	62,665 r	39,518 r	37,904 r	29,420
Hi-Ilmenite		5,184	5,130	4,589	4,780	3,551
Rutile		2,493 r	1,970 r	1,589 r	1,406 r	1,800
Zirconium, zircon concentrates, gross weight[4]		797 r	641 r	292 r	227 r	600
INDUSTRIAL MINERALS						
Cement, hydraulic[4]	thousand metric tons	1,737 r	1,984 r	2,066 r	1,929 r	1,885
Clays:						
Ball clay		47,826 4	50,000	52,000	54,000	55,000
Clays for cement manufacture		1,000	1,100	1,200	1,200	1,100
Kaolin		8,207 4	11,157 r, 4	11,805 r, 4	12,990 r, 4	13,000
Feldspar, crude and ground		75,405 4	53,000 r, 4	55,000 4	57,000 r, 4	57,500
Gemstones:						
Alexandrite	carats	2,000	3,000	3,000	3,000	7,000
Cat's eye	do.	54,000	55,000	56,000	66,000 r	95,000
Diamond	do.	400,000	300,000	300,000	300,000	400,000
Pathmaraga	do.	5,000	2,600	3,300	4,300	4,400
Ruby	do.	31,336 4	35,000	38,000	41,000	40,000
Sapphire	do.	1,491,698 4	1,600,000 r	2,000,000 r	2,500,000 r	3,800,000
Other	do.	2,500,000	2,400,000 r	2,500,000 r	2,500,000 r	3,000,000
Total	do.	4,484,034	4,395,600	4,900,300	5,414,300	7,346,400
Graphite, all grades		3,437 4	3,357 4	4,071 4	4,200	4,000
Mica, scrap		2,095 4	2,927 r, 4	1,260 r, 4	1,493 r	1,500
Phosphate rock, gross weight[4]		46,309 r	58,525 r	47,559 r	49,106 r	36,000
Salt[4]		73,795 r	61,857 r	63,861 r	36,920 r	102,023
Stone:						
Limestone	thousand metric tons	1,192 4	1,200	1,300	1,400	1,500
Quartzite		34,437 4	36,000	37,000	38,000	39,000
MINERAL FUELS AND RELATED MATERIALS						
Petroleum refinery products:						
Gasoline[4]	thousand 42-gallon barrels	1,348 r	1,761 r	1,293 r	1,228 r	675
Jet fuel[4]	do.	1,125 r	1,383 r	829 r	1,108 r	704
Kerosene[4]	do.	717 r	718 r	579 r	443 r	303
Distillate fuel oil[4]	do.	3,294 r	3,738 r	2,940 r	2,907 r	1,919

See footnotes at end of table.

TABLE 1—Continued
SRI LANKA: ESTIMATED PRODUCTION OF MINERAL COMMODITIES[1, 2]

(Metric tons unless otherwise specified)

Commodity[3]		2010	2011	2012	2013	2014
MINERAL FUELS AND RELATED MATERIALS—Continued						
Petroleum refinery products:—Continued						
Residual fuel oil[4]	do.	2,638 r	3,202 r	2,428 r	3,471 r	2,141
Refinery fuel and losses	do.	750 r	760 r	800 r	820 r	840
Other	do.	2,600 r	2,700 r	2,800 r	2,900 r	3,000
Total	do.	12,500	14,300	11,700	12,900	9,600

rRevised. do. Ditto.
[1]Estimated data are rounded to no more than three significant digits; may not add to totals shown.
[2]Table includes data available through November 21, 2015.
[3]In addition to the commodities listed, crude construction materials, such as calcite, clay for brick and tile, dolomite, sand and gravel, sulfur, secondary aluminum, and varieties of stone presumably were produced, but available information was inadequate to make reliable estimates of output.
[4]Reported figure.

TABLE 2
SRI LANKA: STRUCTURE OF THE MINERAL INDUSTRY IN 2014

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity[e]
Aluminum, secondary	Castalloy	Colombo	1
Do.	Lanka Aluminium Industries	do.	NA
Do.	Zenith Aluminium Co.	do.	NA
Do.	Alumex Ltd.	Gonawala	1
Do.	Alumex (Pvt.) Ltd.	Makola	NA
Do.	Lanka Refractories Ltd.	Meepe, Padukka	8
Cement	Holcim (Lanka) Ltd. (part of Holcim Ltd.)	Cement plant at Puttalam and grinding unit in Galle	1,400
Do.	Sri Lanka Cement Corp. (Ministry of Industry and Commerce)	Kankesanthurai	200
Do.	do.	Puttalam	400
Do.	Tokyo Cement Co. (Lanka) Plc.	Trincomalee grinding unit and 2 mills	1,800
Clay, ball	Lanka Ceramic Ltd.	Dediyawala	NA
Graphite	Kahatagaha Graphite Lanka Ltd. (Ministry of Industry and Commerce)	Kahatagaha Mine	6
Do.	Bogala Graphite Lanka Plc. (AMG Mining AG, 87%, and others, 13%)	Bogala Mine	7
Do.	Sakura Pvt. Ltd.	Ragedara Mine	NA
Lead, secondary	Navam Lanka Ltd. (Gravita India Ltd., 52%)	Marigama Export Processing Zone, Marigama, Gampha District	7
Limestone	Holcim (Lanka) Ltd. (part of Holcim Ltd.)	Arawakalu quarry	750
Petroleum, refined 42-gallon barrels per day	Ceylon Petroleum Corp. (Ministry of Petroleum and Petroleum Resources Development)	Sapugaskanda	50,000
Do. do.	Lanka Indian Oil Co. (Indian Oil Corp. Ltd., 75%)	Colombo	NA
Phosphate rock	Lanka Phosphate Co. Ltd. (Ministry of State Resources and Enterprise Development)	Eppawala	36
Salt	Puttalam Salt Ltd. (Raigam Wayamba Saltern Plc.)	Puttalam, Puttalam saltern	30
Do.	Southern Salt (Pvt.) Ltd. (Raigam Wayamba Saltern Plc.)	Ranna, Bata-Atha salterns	NA
Steel, semimanufactures	Ceylon Steel Corp. Ltd.	Oruwala, Athurugiriya	250
Do.	Melwire Rolling (Pvt.) Ltd.	Colombo	NA
Do.	GTB Colombo Corp. (Pvt.) Ltd.	do.	NA
Do.	Elsteel Pvt. Ltd.	Katunayake	NA
Do.	Melbourne Metal Industries Ltd.	Colombo	NA
Do.	Bhuwalka Steel Industries Ltd.	do.	25
Titanium, mineral sands	Lanka Mineral Sands Co. Ltd. (Ministry of State Resources and Enterprise Development)	Pulmoddai	150
Do.	Mirama Minerals	Dambulla	NA

[e]Estimated. Do., do. Ditto. NA Not available.