



# 2013 Minerals Yearbook

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## LITHUANIA

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# THE MINERAL INDUSTRY OF LITHUANIA

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In 2013, Lithuania's real gross domestic product (GDP) rate of growth was 3.3% and the nominal GDP was valued at about \$46 billion. The services sector accounted for about 68% of the GDP; the industrial sector, about 28%; and the agriculture sector, about 4%. The country's inflation rate was 1.2%, and the unemployment rate was 12.4%. The country's mining sector employed 2,589 people. Lithuania was a member of the World Trade Organization and of the European Union (EU), and it was a significant trading partner with Central and Eastern European countries, especially Russia. The domestic employment minimum wage was increased by 25% in 2013 from that of 2012, and the Government was expecting to meet the criteria set forth in the Treaty of Maastricht to join the euro area by 2015 (Statistics Lithuania, 2014; U.S. Central Intelligence Agency, 2014; World Bank, The, 2015).

## Production

In 2013, AB Akmenes Cementas produced about 1 million metric tons (Mt) of cement and about 4 Mt of crushed stone. AB Orlen Lietuva, which was a subsidiary of PKN Orlen S.A. Group of Poland, produced about 9 Mt of refined petroleum products. Data on mineral production are in table 1.

## Structure of the Mineral Industry

Orlen Lietuva owned and operated the Mazeikiai oil refinery and oil processing plant in Lithuania. The Mazeikiai refinery had a design capacity of 15 million metric tons per year (Mt/yr) of crude oil, and was the only refinery in the Baltic States. The Mazeikiai refinery was located near the town of Mazeikiai about 90 kilometers west of the petroleum terminals at Butinge, Klaipeda, and Ventspils; Mazeikiai's crude oil was supplied by the Butinge oil terminal, and most of its production was exported to other European countries. Akmenes Cementas was the only cement producer in Lithuania. The company was privatized in 1997 and was majority owned by domestic investors. Akmenes Cementas had the capacity to manufacture more than 1 Mt/yr of cement at its Naujoji Akmene plant (AB Akmenes Cementas, 2014a; Matuliauskas, 2014; Mazeikiai District Municipality, 2014).

## Mineral Trade

In 2013, Lithuania's total exports, including mineral products, were valued at about \$30 billion, and total imports, including minerals and mineral products, were valued at about \$33 billion. The country's major export destinations were Russia, which accounted for about 20% of the total value of exports; Latvia, about 10%; Estonia, about 8%; Poland and Germany, about 7% each; and Belarus and the United Kingdom, about 5% each. The country's imports came mainly from Russia,

which accounted for about 29% of the total value of imports; Germany, about 10%; Poland, about 9%; and Latvia, about 6%. In 2013, Lithuania's total exports to the United States were valued at about \$1.55 billion compared with \$1.18 billion in 2012 and included aluminum and bauxite valued at about \$236,000; chemical fertilizers, about \$62 million; coal and related fuels, about \$350,000; copper, about \$282,000; iron and steel products, about \$354,000; and petroleum products, about \$1.25 billion. Lithuania's total imports from the United States were valued at about \$853 million compared with \$757 million in 2012, and included fuel oil valued at about \$39 million; iron and steel mill products, about \$168,000; manufactured mineral supplies, about \$1 million; nonferrous metals, about \$383,000; and petroleum products, about \$243,000 (Statistics Lithuania, 2014, p. 2; U.S. Census Bureau, 2014a, b; U.S. Central Intelligence Agency, 2014).

## Commodity Review

### *Industrial Minerals*

**Cement.**—Cement was the main product of Akmenes Cementas. In 2013, the company produced about 1.07 Mt of cement compared with about 1.01 Mt in 2012. Akmenes Cementas exported about 0.6 Mt of cement in 2013 compared with about 0.5 Mt in 2012, and the export value increased by about 15% in 2013. About 0.47 Mt of cement was consumed domestically in 2013, which was about the same amount as in 2012. Akmenes Cementas also sold cement dust, which was used to produce silicate bricks and mineral wool and its derivatives (as additives). Silicate bricks and mineral wool were used to reduce moisture in ceramic bricks, and additives were used to produce asphalt concrete. In October, Akmenes Cementas completed construction of a new dry-process clinker production line. The company's wet cement production process was then modified to the dry production process, which would enable the company to reduce its carbon dioxide (CO<sub>2</sub>) emissions. Because the wet production process has a much higher energy requirement than the dry production process, Akmenes Cementas was able to reduce its fuel consumption during the cement manufacturing process. This new production line was the biggest production modernization project in the company's history; the new line was expected to increase cement production capacity to 1.5 Mt/yr from 1.0 Mt/yr. Akmenes Cementas also had an independent cement testing laboratory, which was accredited by the Lithuanian National Accreditation Bureau, to conduct chemical, mechanical, and physical testing and provide services regarding the measurement of parameters, such as elemental carbon and solid fuel calorific capacity (AB Akmenes Cementas, 2014a–c; Matuliauskas, 2014; Mazeikiai District Municipality, 2014).

## Mineral Fuels

**Petroleum.**—Orlen Lietuva reported an operational loss in 2013, and asked the Government for a rate cut of about 16% to transport its oil products on Lietuvos Geležinkeliai [Lithuanian Railways]. Orlen Lietuva was expecting to obtain a less costly transportation rate from Lithuanian Railways for its oil products and was also seeking support from its customers and investors. At the end of 2013, PKN Orlean S.A.'s inventory included gasoline for about \$32 million compared with about \$14 million in 2012 (AB Orlen Lietuva, 2014, p. 39, 40–45, 56–58; Matuliauskas, 2014).

Orlen Lietuva's Mazeikiai refinery reached the highest profit in its history from 2003 to 2005 when it was operated by the Russian oil company Yukos. During the past few years, as the demand for conventional oil products decreased significantly, Orlen Lietuva was under pressure to lower its oil production margins and decrease its oil product exports. Orlen Lietuva's business components included refining and retailing functions. The refining function included the production and trade divisions of PKN Orlen and its subsidiaries, such as UAB Mazeikių Naftos Prekybos Namai, SIA Orlean Lativija, UAB EMAS, and UAB Paslaugos Tau. The retailing function included 26 of AB Ventus Nafta's gas stations and 9 franchise gas stations (all located in Lithuania) (AB Orlen Lietuva, 2014, p. 39, 40–45, 56–58; Matuliauskas, 2014).

## Outlook

Lithuania's exports, including mineral commodities, are expected to increase significantly because domestic demand is expected to remain weak or modest for at least the near term. The Government plans to make additional investments in the country's infrastructure and industrial development and to move toward a more export-oriented economy. Akmenes Cementas plans to increase its use of alternative fuels in its cement production process. The company plans to increase waste burning to reduce the amount of fossil fuels used in its production process by 50% by 2015; it currently saves approximately 10% of fuel from burning waste. Because

the operation of Orlen Lietuva's Mazeikiai refinery caused pollution, PKN Orlen has a legal obligation to clean up the contaminated land and water in the area of the production plant. The company increased its provisional budget by 160% in 2013 from that of 2012 to manage its interim business risk, reduce CO<sub>2</sub> emissions, and handle restructuring and employment benefits. Production of the country's major mineral commodities, such as cement and refined petroleum products, are expected to increase in 2014 (AB Akmenes Cementas, 2014a; AB Orlen Lietuva, 2014, p. 62).

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TABLE 1  
LITHUANIA: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

(Metric tons)

Commodity	2009	2010	2011	2012	2013
Ammonia, nitrogen content	472,400	434,100	869,500	918,406 <sup>r</sup>	693,195
Cement	583,100	834,000	996,300	1,014,977 <sup>r</sup>	1,069,593
Clays	246,398	250,000	282,400	300,075 <sup>r</sup>	318,733
Crushed granite	327,000	307,000	374,000	2,483 <sup>r</sup>	6,098
Crushed stone	2,426,773	2,500,000	2,500,000 <sup>e</sup>	3,241,831 <sup>r</sup>	3,801,100
Limestone	911,900	928,000	1,179,000	1,354,004 <sup>r</sup>	1,465,455
Peat:					
Agricultural use	542,500	326,800	384,700	325,902 <sup>r</sup>	432,602
Fuel use <sup>e</sup>	15,000	15,000	15,000	60,254 <sup>r</sup>	84,060
Petroleum:					
Crude	115,000	114,500	113,900	101,644 <sup>r</sup>	86,054
Refinery products	8,012,300	8,579,400	8,796,600 <sup>r</sup>	8,458,568 <sup>r</sup>	8,961,551
Sand and gravel:					
Construction sand	3,100,000	3,104,000	5,776,800	2,893,087 <sup>r</sup>	4,211,405
Gravel, pebbles, shingle, and flint	1,930,000	2,551,000	2,372,000	2,188,079 <sup>r</sup>	2,719,511
Silica sand, industrial	41,200	67,300	53,400	53,909 <sup>r</sup>	57,007
Sulfur	69,722	73,500	76,700	73,040 <sup>r</sup>	81,449
Sulfuric acid <sup>e</sup>	1,155,849 <sup>2</sup>	1,150,000	1,150,000	1,150,000	1,150,000

<sup>e</sup>Estimated; estimated data are rounded to no more than three significant digits. <sup>r</sup>Revised.

<sup>1</sup>Table includes data available through December 2, 2014.

<sup>2</sup>Reported figure.

TABLE 2  
LITHUANIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2013

(Thousand metric tons)

Commodity	Major operating companies and major equity owners	Location of main facility	Annual capacity
Cement	AB Akmenes Cementas (CEMEX S.A.B. de C.V., 33.95%)	Plant in Naujoji Akmenė	1,500
Nitrogen fertilizers	Achema	Jonava	2,000
Petroleum, refined	AB Orlen Lietuva (PKN Orlen S. A. Group)	Plant in Mazaikiai	15,000