



# 2012 Minerals Yearbook

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## LEBANON

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# THE MINERAL INDUSTRY OF LEBANON

By Mowafa Taib

In 2012, Lebanon, which occupies an area of only 10,400 square kilometers (km<sup>2</sup>), was more active in trading mineral commodities than in producing them. The country traded in diamond, ferrous and nonferrous scrap metals, fertilizer, gold, and hydrocarbon products, which had been increasing in value and quantity in recent years. Lebanon, however, produced only modest amounts of cement, fertilizer, gypsum, lime, limestone, and salt, all of which were used mainly for local consumption, although a small amount was exported (Ministry of Finance, 2013a, b; U.S. Central Intelligence Agency, 2013).

## Government Policies and Programs

In 2012, the Government continued preparation work for the development of its offshore crude oil and natural gas resources following the discovery of significant quantities of recoverable crude oil and natural gas in the Levant basin in the Mediterranean Sea; the Levant basin is located along the coasts of Cyprus, Israel, Lebanon, and Syria. The country's first hydrocarbon law was approved by the Parliament on August 17, 2011. In November 2012, the Government created the Petroleum Administration Authority (under the Ministry of Energy and Water) to manage the offshore exploration for hydrocarbons in a 22,730-km<sup>2</sup> area located in the eastern Mediterranean Sea along the Lebanese coast (U.S. Geological Survey, 2010; Nield, 2011; Mirza, 2013).

## Minerals in the National Economy

The Lebanese economy was estimated to have grown in real terms by 2.0% in 2012 compared with 1.5% in 2011. The slow growth of Lebanon's economy in 2011 and 2012 was attributed to the effects of the political turmoil and social unrest that engulfed the Middle East and the North Africa region in general and to the continued war in neighboring Syria in particular. The unrest in Syria made it difficult to make investments in Lebanon because of the interdependence of the Lebanese and Syrian economies. The war in Syria disrupted the transport routes of merchandise from Lebanon to Iraq, the Gulf countries, and Turkey by way of Syria as well as from Iraq and Jordan to ports in Lebanon by way of Syria (International Monetary Fund, 2012, p. 11; Bank Audi S.A.L., 2013, p. 4, 12).

## Mineral Trade

In 2012, the value of Lebanon's total exports increased by 5.4% to \$4.48 billion from \$4.25 billion in 2011. Pearls and precious and semiprecious metals exports accounted for 36% of total exports compared with 35% in 2011; metallic products exports, 10% compared with 12% in 2011; and chemical products exports, which included fertilizers, 8% compared with 9% in 2011. Lebanon's major export markets in terms of the value of exports were Switzerland (12%), Saudi Arabia and the

United Arab Emirates (8% each), Syria (7%), Iraq (5%), and Turkey (3%) (Ministry of Finance, 2013b).

Lebanon's total imports increased by 5.6% to \$21.28 billion in 2012 from \$20.16 billion in 2011. In terms of value, mineral products imports, mainly mineral fuels (natural gas and refinery products), accounted for 28% of the country's total imports compared with 23% in 2011; chemical products imports, 8% compared with 9% in 2011; and metals and metal products imports, 7% compared with 8% in 2011. Also in terms of value, pearl and precious and semiprecious gemstone imports accounted for 7% of Lebanon's total imports compared with about 10% in 2011, or decreased by 26% to \$1,585 million in 2012 from \$2,141 million in 2011. The United States was Lebanon's leading source of imports, supplying 11% of Lebanon's total imports, followed by Italy (9%), China (8%), France (7%), Germany (6%), and Russia and the United Kingdom (2% each). U.S. exports to Lebanon included machinery, medical equipment, pharmaceutical products, and plastic materials (Ministry of Finance, 2013a; 2013b, p. 4–8, 12–15).

Lebanon's diamond trade decreased in both value and volume in 2012 compared with that of 2011 because of the decreased demand for diamond on the world markets. According to the Kimberley Process Certification Scheme's latest statistics, Lebanon's diamond exports decreased in value by about 58% and in volume by 36% in 2012 compared with those of 2011. Rough and polished diamond exports totaled 704,390 carats valued at more than \$125 million in 2012 compared with 1,104,935 carats valued at more than \$296 million in 2011. Similarly, diamond imports decreased in quantity by 48% and in value by 45% compared with the quantity and value in 2012, respectively. Lebanon imported 683,390 carats of diamond worth \$112.8 million in 2012 compared with 1,177,960 carats worth about \$205 million in 2011 (Kimberley Process Certification Scheme, 2013).

## Production

Cement output was well documented by the Government and the industrial sector because it is used as an important indicator of the country's construction sector activity; the construction sector accounted for up to 20% of the country's gross domestic product in recent years. Cement production decreased by 9% in 2012 compared with that of 2011. Production figures for other industrial mineral commodities in table 1, such as fertilizer, gypsum, and sulfuric acid were estimated from known production capacities because of the lack of reliable sources of production data (table 1).

## Structure of the Mineral Industry

Cement producers in Lebanon included Ciment de Sibline S.A.L. (majority owned by Secil-Companhia Geral de Cale e Cimento S.A. of Portugal), Cimenterie du Moyen-Orient S.A.L.,

Cimenterie Nationale S.A.L. (Alsabeh Cement), Holcim (Liban) S.A.L. (a subsidiary of Holcim Ltd. of Switzerland), and Société Libanaise des Ciments Blancs S.A.L. (a subsidiary of Holcim Ltd.). Selaata Chemicals Co. S.A.L. (formerly Lebanon Chemicals Company S.A.L.) was the sole producer of fertilizer and other chemicals in the country. The company produced aluminum sulfate, phosphoric acid, single superphosphate, sulfuric acid, and triple superphosphate fertilizer. Attar Steel Co., Demco Steel Industries S.A.L., and Société Industrielle Libanaise S.A.L. produced rolled steel and steel pipes. Diametal S.A.L. was among the first companies in the Middle East to produce shredded and heavy melting scrap. Lebanese Salt Palace Co. S.A.R.L. and Nepton Salt Co. S.A.L., which were located at Enfeh in northern Lebanon, produced salt (table 2).

## Commodity Review

### *Mineral Fuels*

**Natural Gas and Petroleum.**—In 2010, the U.S. Geological Survey estimated that between 483 million barrels (Mbbbl) and 3,759 Mbbbl of crude oil, between 1.42 trillion cubic meters and 6.44 trillion cubic meters of natural gas, and between 1,226 Mbbbl and 5,783 Mbbbl of natural gas liquids could be produced from the Levant basin in the Mediterranean Sea, which is located along the coasts of Cyprus, Israel, Lebanon, and Syria (U.S. Geological Survey, 2010).

The Government estimated the hydrocarbon reserves in Lebanon's territorial waters to be 660 Mbbbl of oil and 708 billion cubic meters (reported as 25 trillion cubic feet) of natural gas. The Government planned to hold its first licensing round for offshore oil and gas exploration and exploitation by November 2011. The bid was delayed until relevant Government agencies could be created and a legal framework put in place to oversee the licensing and exploration activity. The Government expected to complete the prequalification bid by April 2013, finalize the selection process by 2014, and begin exploration in 2017. About 52 companies submitted prequalification documents for the bid round, including Chevron Corp. and Exxon Mobil Corp. of the United States, Royal Dutch Shell p.l.c. of the United Kingdom, and Total S.A. of France (Nield, 2011; Baxter, 2013; U.S. Energy Information Administration, 2013; Wood, 2013).

### Outlook

The Lebanese economy is expected to grow at a slow rate in the next few years. The construction sector is expected to

remain the driving force behind the country's economic growth. The expansion of the industrial sector in Lebanon, which includes fertilizer production and steel products, depends mainly on the geopolitical stability in Lebanon and Syria and on the availability of sufficient energy resources. The development of Lebanon's offshore hydrocarbon resources in the Levant basin, which is expected to be completed in the next 5 years, could provide a long-term supply of crude oil and natural gas to the country and subsequently stimulate its mineral industry.

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TABLE 1  
LEBANON: ESTIMATED PRODUCTION OF MINERAL COMMODITIES<sup>1,2</sup>

(Metric tons unless otherwise specified)

| Commodity <sup>3</sup>                    | 2008                 | 2009                 | 2010                   | 2011                   | 2012                 |
|---|----------------------|----------------------|------------------------|------------------------|----------------------|
| Cement, hydraulic<br>thousand metric tons | 4,219 <sup>r,4</sup> | 4,897 <sup>r,4</sup> | 5,227 <sup>4</sup>     | 5,500 <sup>4</sup>     | 5,309 <sup>4</sup>   |
| Gypsum<br>do.                             | 85                   | 100                  | 105                    | 105                    | 105                  |
| Lime<br>do.                               | 250                  | 250                  | 250                    | 250                    | 250                  |
| Limestone, for cement<br>do.              | 5,500                | 6,400                | 7,000                  | 7,000                  | 7,000                |
| Phosphate: <sup>5</sup>                   |                      |                      |                        |                        |                      |
| Phosphatic fertilizers                    | 85,000 <sup>4</sup>  | 73,000 <sup>4</sup>  | 270,000 <sup>r,4</sup> | 310,000 <sup>r,4</sup> | 310,000 <sup>4</sup> |
| Phosphoric acid                           | 51,000               | 51,000               | 60,000 <sup>r,4</sup>  | 60,000 <sup>r</sup>    | 60,000               |
| Salt                                      | 20,000               | 20,000               | 20,000                 | 20,000                 | 20,000               |
| Sulfuric acid:                            |                      |                      |                        |                        |                      |
| Gross weight                              | 500,000              | 500,000              | 600,000                | 600,000                | 600,000              |
| S content                                 | 164,000              | 164,000              | 196,000                | 196,000                | 196,000              |

<sup>r</sup>Revised. do. Ditto.

<sup>1</sup>Estimated data are rounded to no more than three significant digits.

<sup>2</sup>Table includes data available through February 28, 2014.

<sup>3</sup>In addition to the commodities listed, ammonium sulfate, granite, gravel, marble, sand, and other construction materials are also produced, but quantities are not reported, and available information is inadequate to make reliable estimates of output.

<sup>4</sup>Reported figure.

<sup>5</sup>P<sub>2</sub>O<sub>5</sub> equivalent.

TABLE 2  
LEBANON: STRUCTURE OF THE MINERAL INDUSTRY IN 2012

(Thousand metric tons)

| Commodity                           | Major operating companies and major equity owners  | Location of main facilities | Annual capacity |
|-------------------------------------|--|-----------------------------|-----------------|
| Aluminum sulfate                    | Selaata Chemicals Co. S.A.L.   | Selaata                     | 30              |
| Cement                              | Holcim (Liban) S.A.L. (Holcim Ltd., 52%; Mershed Baaklini, 14.98%; Seament Holding S.A.L., 7.5%; individual investors, 21.39%) | Chekka                      | 2,900           |
| Do.                                 | Cimenterie Nationale S.A.L.  | do.                         | 2,800           |
| Do.                                 | Ciment de Sibline S.A.L. (Secil-Companhia Geral de Cale e Cimento S.A., 50.5%; Bank Med, 20%; Walid Jumblatt, 20%)             | Sibline                     | 1,277           |
| Do.                                 | Cimenterie du Moyen-Orient S.A.L. (Seament Holding S.A.L.)   | Chekka                      | 500             |
| Do.                                 | Société Libanaise des Ciments Blancs S.A.L. (Holcim Ltd., 52%)   | do.                         | 100             |
| Granite and marble                  | Arabian Mining Habre & Co. S.A.L.  | Kahaleh, Baabda             | NA              |
| Do.                                 | Wadih Tadros & Fils Co.  | Kafarchima                  | NA              |
| Do.                                 | Société Nationale de Marbre  | Mar Elias, Btina            | NA              |
| Do.                                 | Marble & Cement Products S.A.L.  | Bekaa                       | NA              |
| Do.                                 | Boustani, Mallah & Co. S.A.L.  | Kesrouan                    | NA              |
| Gypsum                              | Sodap Liban S.A.L.   | Hosrayel, Jebeil            | 30              |
| Iron and steel, steel: <sup>1</sup> |  |                             |                 |
| Rolled                              | Attar Steel Co.  | Beirut                      | 200             |
| Do.                                 | Société Industrielle Libanaise S.A.L.  | Southern Metn               | NA              |
| Pipes                               | Demco Steel Industries S.A.L.  | do.                         | 300             |
| Scrap:                              |  |                             |                 |
| Shredded                            | Diametal S.A.L.  | Mkalles                     | 100             |
| Heavy melting                       | do.  | do.                         | 200             |
| Lime                                | Société des Chaux et Plâtres du Liban S.A.L.   | Chekka                      | 250             |
| Phosphate fertilizer:               | Selaata Chemicals Co. S.A.L.   | Selaata                     | 400             |
| Single superphosphate               | do.  | do.                         | 100             |
| Triple superphosphate               | do.  | do.                         | 300             |
| Phosphoric acid                     | do.  | do.                         | 165             |
| Salt                                | Nepton Salt Co. S.A.L.   | Enfeh                       | 2,000           |
| Do.                                 | Lebanese Salt Palace Co. S.A.R.L.  | do.                         | 2,000           |
| Sulfuric acid                       | Selaata Chemicals Co. S.A.L.   | Selaata                     | 600             |

Do., do. Ditto. NA Not available.

<sup>1</sup>Lebanon's only steel mill, which was owned and operated by Consolidate Steel Lebanon S.A.L., was shut down in 2003.