



# 2006 Minerals Yearbook

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CYPRUS

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# THE MINERAL INDUSTRY OF CYPRUS

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The mineral industry of Cyprus<sup>1</sup> has made a small but increasing contribution to the Cypriot economy, accounting for about 0.3% of the gross national product in 2006. The mineral industry provided raw materials for the domestic construction and manufacturing industries (Mining Journal Online, 2006).

The production of bentonite, cement, sand and gravel, and stone dominated the mineral industry of Cyprus. Other mineral commodities produced included common clay, gypsum, ocher, perlite, and umber. In northern Cyprus, the mineral industry consisted mainly of the production of construction aggregates, stone, and umber.

## Production

Hellenic Copper Mines Ltd.'s copper mine and solvent extraction-electrowinning operations at Skouriotissa were closed in 2005. Production resumed briefly in 2006.

Eastern Mediterranean Minerals Ltd. (EMED) of Cyprus, which was a joint venture of Eastern Mediterranean Resources Public Ltd. of Cyprus (95%) and Hellenic Mining Co. of Cyprus (5%), began a prefeasibility study in 2006 of its Klirou copper-zinc project, with a view of moving to full feasibility study in 2007. EMED's exploration areas in Cyprus were centered on the Troodos ophiolite complex. The targeted mineralization areas were volcanic-hosted massive sulfide copper deposits, similar to the larger copper mines that produced in the past, three of which exceeded 10 million metric tons of ore at grades of between 1% and 4% copper (EMed, 2006).

The reported existence of natural gas and petroleum prompted the Government to introduce legislation to regulate the natural

gas and petroleum sectors and to claim the Exclusive Economic Zone (EEZ) of the island in accordance with the United Nations Law of the Sea Convention. The Government adopted the Contiguous Zone Law of 2004 and the Exclusive Economic Zone Law of 2004. In May 2006, the Government of Cyprus and the Government of Egypt signed an agreement on the joint development of hydrocarbon sources straddling the demarcation line that separates the EEZ of the two countries (Mondaq, 2006).

## Structure of the Mineral Industry

Table 2 is a list of major mineral industry facilities.

## Outlook

In 2006, industrial infrastructure construction is expected to maintain the domestic demand for cement, gypsum, sand and gravel, and stone. International demand from the cat litter, construction, oilfield drilling fluids, and pigments industries is expected to maintain Cypriot exports of bentonite, gypsum, perlite, and umber.

## References Cited

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- Mondaq, 2006, Developments in the Cypriot offshore oil and gas industries: Mondaq, July 3. (Accessed February 1, 2007, at <http://www.mondaq.co.uk/article.asp?articleid=40810&1k=1>.)

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<sup>1</sup>Unless specifically stated, all data in this chapter are for the Republic of Cyprus in southern Cyprus because data related to areas of northern Cyprus administered by Turkish Cypriots are sparse or unavailable. The two areas have been separated since 1974.

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

(Thousand metric tons unless otherwise specified)

| Commodity  | 2002    | 2003             | 2004               | 2005    | 2006 <sup>c</sup>    |
|--|---------|------------------|--------------------|---------|----------------------|
| Cement, hydraulic                                    | 1,438   | 1,637            | 1,689              | 1,805   | 1,786 <sup>3</sup>   |
| Clays:   |         |                  |                    |         |                      |
| Bentonite metric tons                                | 128,400 | 144,859          | 155,717            | 172,366 | 150,620 <sup>3</sup> |
| Other:   |         |                  |                    |         |                      |
| For brick and tile manufacture                       | 350     | 350 <sup>e</sup> | 425                | 443     | 400                  |
| For cement manufacture                               | 480     | 550              | 565                | 600     | 540 <sup>3</sup>     |
| Total  | 830     | 900 <sup>e</sup> | 990                | 1,043   | 940                  |
| Copper, refined metric tons                          | 3,695   | 2,552            | 1,240              | --      | 880 <sup>3</sup>     |
| Gypsum, crude <sup>4</sup> do.                       | 295,000 | 300,000          | 255,000            | 210,000 | 264,000 <sup>3</sup> |
| Lime, hydrated do.                                   | 12,190  | 13,370           | 13,990             | 16,589  | 14,913 <sup>3</sup>  |
| Petroleum refinery products: <sup>5</sup>            |         |                  |                    |         |                      |
| Liquefied petroleum gases thousand 42-gallon barrels | 378     | 330              | 102 <sup>r</sup>   | --      | --                   |
| Gasoline do.   | 1,313   | 1,242            | 336 <sup>r</sup>   | --      | --                   |
| Kerosene and jet fuel do.                            | 281     | 301              | 80 <sup>r</sup>    | --      | --                   |
| Distillate fuel oil do.                              | 2,704   | 2,437            | 657 <sup>r</sup>   | --      | --                   |
| Residual fuel oil do.                                | 2,914   | 2,411            | 774 <sup>r</sup>   | --      | --                   |
| Asphalt and bitumen do.                              | 217     | 194              | 42 <sup>r</sup>    | --      | --                   |
| Other do.  | 17      | --               | --                 | --      | --                   |
| Total do.  | 7,824   | 6,916            | 1,991 <sup>r</sup> | --      | --                   |
| Sand and stone:                                      |         |                  |                    |         |                      |
| Limestone, crushed (Havara)                          | 2,000   | 1,000            | 1,200              | 1,000   | 700 <sup>3</sup>     |
| Marble   | 2       | 2                | 1                  | 2       | 1 <sup>3</sup>       |
| Marl, for cement production                          | 1,950   | 2,220            | 2,290              | 2,450   | 2,210 <sup>3</sup>   |
| Sand and gravel <sup>6</sup>                         | 10,500  | 10,700           | 11,600             | 12,064  | 12,199 <sup>3</sup>  |
| Building stone <sup>7</sup>                          | 80      | 103              | 105                | 51      | 57 <sup>3</sup>      |
| Sulfur <sup>e</sup> metric tons                      | 1,300   | 1,300            | 300                | --      | --                   |
| Umber do.  | 5,500   | 5,500            | 5,205              | 5,088   | 15,167 <sup>3</sup>  |

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

<sup>1</sup>Table includes data available through August 30, 2007.

<sup>2</sup>Small quantities of the mineral pigments ocher and terra verte are mined intermittently. Mineral production data from areas of northern Cyprus that are administered by Turkish Cypriots and production of fertilizers, perlite, and secondary metals from scrap are not included in this table because available information is inadequate to make estimates of output.

<sup>3</sup>Reported sources of data include company annual reports, the Mines Service, and the Statistical Service of Cyprus.

<sup>4</sup>About 4,000 metric tons per year of gypsum was calcined.

<sup>5</sup>Refinery closed in April 2004. Petroleum refinery products are rounded to the nearest thousand barrels; may not add to totals shown.

<sup>6</sup>Includes crushed aggregate.

<sup>7</sup>Includes crude, semifinished, and worked stone.

TABLE 2  
CYPRUS: STRUCTURE OF THE MINERAL INDUSTRY IN 2006

(Metric tons unless otherwise specified)

| Commodity               | Major operating companies and<br>and major equity owners | Location of main facilities                              | Annual capacity |
|-------------------------|--|--|-----------------|
| Aluminum:               |  |  |                 |
| Secondary               | A & E Aluminium Recycling Ltd.                           | Nicosia  | NA              |
| Semimanufactures        | Muskita Aluminum Industries Ltd.                         | Extrusion presses, Limassol                              | 18,000          |
| Cement                  | Vassiliko Cement Works Ltd.                              | Vassiliko  | 1,260,000       |
| Do.                     | Cyprus Cement Co. Ltd.                                   | Moni   | 400,000         |
| Do.                     | Bogaz Endustri ve Madencilik                             | Near Famagusta, Northern Cyprus                          | 150,000         |
| Clay, bentonite         | Peletico Penta Ltd.                                      | Mines at Pentakomo and Troulli                           | 300,000         |
| Do.                     | Hellenic Mining Co.                                      | NA   | NA              |
| Do.                     | Drapia Mining Co. Ltd.                                   | Drapia, Monagroulli, and Parsata                         | (1)             |
| Do.                     | Oryktako Ltd.  | Mine at Kato Moni and processing plant at Malounda       | 10,000          |
| Do.                     | C & A Quarries Ltd.                                      | NA   | NA              |
| Copper, cathode         | Hellenic Copper Mines Ltd.                               | Skouriotissa   | (2)             |
| Gypsum                  | Peletico Ltd.  | Quarry and processing plant at<br>Aradipou, near Larnaca | NA              |
| Do.                     | Zeiplast Chemical Industries Ltd.                        | Near Moni  | NA              |
| Perlite                 | Peletico Ltd.  | Expanded perlite facility at Larnaka                     | NA              |
| Do.                     | Zeiplast Chemical Industries Ltd.                        | Expanded perllite facility at Moni                       | NA              |
| Petroleum, crude        | Cyprus Petroleum Refinery Ltd.                           | Larnaca  | (3)             |
| Steel, semimanufactures | B.M.S. Metal Pipes Industries Ltd.                       | Tube and pipe mill, Paphos                               | 15,000          |

NA Not available.

<sup>1</sup>Inactive

<sup>2</sup>Production ceased in January 2005.

<sup>3</sup>Refinery closed in April 2004. Conversion of facility to petroleum product storage terminal that began in 2004 was continuing.