



2010 Minerals Yearbook

EGYPT [ADVANCE RELEASE]

THE MINERAL INDUSTRY OF EGYPT

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Egypt was a significant producer of cement, direct-reduced iron (DRI), and mineral fuels in 2010. It was the leading African country in petroleum products output, the second ranked producer of natural gas in Africa after Algeria, and the fifth ranked producer of crude oil in Africa after Nigeria, Angola, Algeria, and Libya. Egypt was responsible for 1.9% of the world's total natural gas output and 0.9% of the world's crude oil supply. Egypt was the world's 11th ranked cement producer and accounted for about 1.5% of the world's cement production. The country was Africa's second ranked crude steel producer after South Africa and the world's seventh ranked producer of DRI. The mineral commodities produced in Egypt included aluminum, barite, basalt, bentonite, coal, coke, dolomite, feldspar, ferroalloys, fluorspar, gold, granite, gypsum, ilmenite, iron and steel, iron ore, kaolin, limestone, manganese, marble, phosphate rock, quartz, salt, sand and gravel, sandstone, secondary copper, silica sand, soda ash, sulfur, and talc (table 1; BP p.l.c., 2011, p. 8, 22; Midrex Technologies, Inc., 2011, p. 7; Organization of the Petroleum Exporting Countries, 2011, p. 42; van Oss, 2011).

Minerals in the National Economy

In 2010, the Egyptian economy grew at a rate of 5.1% in real terms compared with 4.7% in 2009. The economic activity of the mining sector was 13.7% of the country's gross domestic product (GDP), including crude oil (5.6% of the GDP), natural gas (7.7%), and other minerals (0.4%). The industrial sector, which included fertilizer manufacturing and petroleum refining, accounted for 15.4% of the GDP. Construction and building activity accounted for 5.2% of the GDP (Central Bank of Egypt, 2011, p. 85).

The flow of foreign direct investment (FDI) to Egypt decreased by about 5% to \$6.4 billion in 2010 from \$6.7 billion in 2009. The European Union, the United Kingdom, and the United States were the sources of most of the FDI, followed by the United Arab Emirates, Saudi Arabia, and Libya. FDI played an important role in Egypt's mineral industry, especially the hydrocarbon sector, which received about 69% and 75% of the total FDI in 2010 and 2009, respectively. The outflow of FDI from Egypt to the rest of the world increased by 106% to \$1,176 million from \$571 million in 2009 (Arab Investment and Export Credit Guarantee Corp., 2011).

Government Policies and Programs

The draft of the new mining law, which was prepared by the Egyptian Mineral Resources Authority (EMRA) with the help of the International Finance Corp. (IFC) of the World Bank Group in 2008, was still awaiting Parliamentary and Presidential approval as of yearend 2010. Investment law No. 8 of 1997 was the legal framework for several mining companies that were

established in the country in the past decade. The law protects investments in the country against nationalization and provides incentives for investing in mining and the manufacturing of fertilizer and petrochemicals in the country's Free Zones.

The Government designated gold production and natural gas processing, treatment, and transportation projects as strategic projects for the development of the mineral sector. The Egyptian Mineral Resources Scientists Council of the Ministry of Petroleum developed a long-term mining strategy for the country. The national strategy was focused on developing the mineral resources of the Abu Tartur phosphate rock reserves, which are located in the Western Desert; the Al Wadi Al Gadid phosphate project, which is located in the southeastern part of the country; and the Sinai Peninsula. The Abu Tartur project was under the control of Misr Phosphate Co., which was owned by the Ministry of Petroleum, the Ministry of Finance, and the National Investment Bank (Ministry of Petroleum, 2011).

Egypt's fertilizer manufacturing industry, which produced about 10 million metric tons per year (Mt/yr) of nitrogen and phosphate fertilizers, attracted foreign investors because of the country's large mineral resources of phosphate rock, the availability of natural gas, and Egypt's proximity to world consumers in Africa, Europe, and South Asia. A consortium of local banks that included Arab African International Bank, Banque du Caire, Banque Misr, and National Bank of Egypt approved a \$1,050 million 9-year loan to the Egyptian Nitrogen Products Co. (ENPC), which was a wholly owned subsidiary of Misr Fertilizer Production Co. S.A. (MOPCO). The loan would be used to triple MOPCO's fertilizer production at the Rehab Industrial Free Zone in Damietta (Bank Audi S.A.L., 2010, p. 4).

Production

In 2010, the volume of output of several mineral commodities increased compared with that of 2009, including the output of ammonia, asphalt, barite, crude steel, feldspar, ferromanganese, gold, gypsum, industrial sand (silica), manganese, marble, sand and gravel, and sulfur. Significant decreases in the output of mineral commodities in 2010 compared with that of 2009 included that of bentonite, ilmenite, kaolin, phosphate rock, and sandstone. The production of vermiculite ceased (table 1).

Structure of the Mineral Industry

Egypt's metals, industrial minerals, and mineral fuel industries were managed by the Ministry of Petroleum through five independently managed entities—the Egyptian General Petroleum Corp. (EGPC), the Egyptian Natural Gas Holding Co. (EGAS), Egyptian Petrochemical Holdings Co. (ECHEM), the EMRA, and Ganoube El Wadi Holding Co. (Ganope). The EMRA was responsible for the exploration and exploitation for Egypt's mineral resources (excluding hydrocarbons). The

EGPC managed the exploration for and production, refining, marketing, and distribution of crude oil. The EGAS administered the country's natural gas activities, including the exploration for and marketing, processing, production, treatment, and transportation of natural gas. Ganope was responsible for all natural gas and crude oil activities in Upper Egypt. The ECHEM carried out all petrochemical operations in the country.

The Industrial Development Authority (IDA) of the Ministry of Trade and Industry (MTI) was responsible for issuing licenses for new cement and steel plants as well as for expanding the capacities of the existing plants. One of MTI's charges was to ensure the presence of a sufficient supply of cement, reinforcement bar, and other building materials in the local markets.

The Holding Company for Metallurgical Industries was an Egyptian joint stock holding company (E.J.S.C) organized to operate under the provisions of the public enterprise law. Its affiliates included Aluminium Company of Egypt (Egyptalum), Delta Steel Mill Co., Egyptian Copper Works Co., Egyptian Ferroalloys Co., Egyptian Iron and Steel Co. (Hadisolb), Egyptian Co. for Metallic Construction, El Nasr Coke and Chemicals Co., El Nasr Forging Co., El Nasr Mining Co., El Nasr Pipes and Fittings Co., and the General Co. for Ceramics and Porcelain.

El Nasr Mining produced several mineral commodities, including ball clay, barite, clay, feldspar, fluor spar, gypsum, ilmenite, iron ore (iron oxide), kaolin, magnesite, manganese, phosphate rock, quartz, and talc. In 2010, El Nasr Mining's total mineral commodities production volume was 3.4 million metric tons (Mt) compared with 3.3 Mt in 2009. The company exported 1.25 Mt of minerals compared with 1.65 Mt in 2008 (El Nasr Mining Co., 2011; Metallurgical Industries Co., 2011, p. 86).

TAS Flowrance Group, also known as the Egyptian Mining Co., was a private company that produced and exported dolomite, feldspar, fluorite, granite, limestone, marble, phosphate rock, quartz, sandstone, silica sand, and talc from its mines at Aswan and the Red Sea coast. The company operated a limestone crusher in El Menya (TAS Flowrance Group, 2011).

El Dawlia for Trading and Mining Co. (El Dawlia Mining) was one of the contracting companies for El Nasr Mining. In January, El Dawlia Mining began producing phosphate rock in addition to such mineral commodities as ball clay, fluor spar, ilmenite, iron oxide pigments, kaolin, magnesite, quartz, and talc (El Dawlia for Trading and Mining Co., 2011).

The Egyptian Company for Mineral Resources (ECMR), which was a corporate entity of the EMRA, entered into partnerships with local and international companies that produced the following 15 mineral commodities: bentonite, calcium carbonate, feldspar, fluor spar, granite, gypsum, ilmenite, iron or oxide pigments, marble, phosphate rock, quartz, silica sand, tantalum, and vermiculite. ECMR was a partner with Gippsland Ltd. of Australia to develop Abu Dabbab's tantalum-tin-feldspar deposit and Wadi Allaqi's gold-copper-nickel deposit. The company also created a joint venture, Quartz Misr, with local investors to exploit quartz deposits in the Eastern Desert of Egypt. ECMR was also a partner with Centamin Egypt Ltd. of Australia in the development of the Sukari gold mine project (Egyptian Company for Mineral Resources, 2011).

The National Company for Mining and Quarries (El Wataneya) was one of the companies that produced various grades of phosphate rock and marketed it locally and abroad. The company had several exploration and exploitation licenses and was planning to build a new phosphate fertilizer plant in Aswan Governorate. El Wataneya was preparing feasibility studies for ilmenite, iron, kaolin, and quartz production in the Hamrawein area.

The cement and steel markets had both state-owned and private producers but were dominated by private companies. MTI was responsible for issuing licenses to build cement, fertilizer, and steel plants through IDA and for regulating the cement and steel markets. MTI issued eight permits for new cement plants and two for the expansion of existing plants and announced plans to offer 12 licenses to build cement plants in 2010 to meet the country's increasing demand for cement. Several international cement companies had cement production operations in Egypt, including Cementos La Union S.A. of Spain, Cimentos de Portugal, SGPS, S.A. (Cimpor) of Portugal, Holcim Group of Switzerland, Italcementi Group of Italy, Lafarge Group of France, Titan Group of Greece, and Vicat Group of France. ASEC cement was a listed Egyptian company that owned and operated cement plants in Algeria, Egypt, Iraq, Sudan, and Syria (table 2).

Mineral Trade

In 2010, the value of Egypt's total export commodities increased by about 9% to \$26.3 billion from \$24.2 billion in 2009. The value of petroleum products exports, which accounted for 28.7% of total exports, increased by about 21% to about \$7.6 billion from \$6.3 billion in 2009. The value of mineral industry exports, which included crude oil and natural gas, fertilizer, gold, iron and steel products, petroleum products, and unalloyed aluminum, was 41% of total exports compared with 38% of total exports in 2009. The value of petroleum products exports was 26.6% of total exports, including natural gas, which accounted for 8.6% of total exports, and crude oil exports, which was 6.8% of total exports. The value of iron and steel exports increased to \$458 million compared with \$308 million in 2009 and \$727 million in 2008. The value of gold exports increased to \$1,034 million in 2010 compared with \$906 million in 2009 and \$15 million in 2008. The value of fertilizer exports totaled \$1,081 million compared with \$1,082 million in 2009 and \$432 million in 2008. The value of Egyptian imports increased by about 16% to \$53 billion from \$45.6 billion in 2009 and \$56.6 billion in 2008. The value of petroleum products imports increased to 13.3% from 7.5% of the total value of imports in 2009. The value of imports of iron and steel products increased by 58% to \$1,401 billion from \$886 million in 2009. The value of crude oil imports totaled \$1.3 billion and accounted for 2.5% of the total value of imports (United Nations Statistics Division, 2011).

In 2010, the value of Egypt's exports of crude steel and iron and steel products was about \$1.3 billion; pearls and precious metals, \$1 billion; copper products, \$708 million; aluminum products, \$497 million; nickel products, \$88 million; lead products, \$14 million; and zinc products, about \$3 million.

The volume of crude oil exports decreased by about 15% to 87,000 barrels per day (bbl/d) from 102,000 bbl/d in 2009, and the volume of oil products exports decreased by 54% to 29,200 bbl/d from 63,600 bbl/d in 2009. Total natural gas exports also decreased by 16% by volume to 15.32 billion cubic meters from 18.32 billion cubic meters in 2009 (Organization of Arab Petroleum Exporting Countries, 2011, p. 92, 94, 96; United Nations Statistics Division, 2011).

In 2010, U.S. exports to Egypt were valued at \$6.8 billion compared with \$5.2 billion in 2009. U.S. imports from Egypt were valued at \$2.2 billion compared with about \$2.1 billion in 2009 (U.S. Census Bureau, 2011).

Commodity Review

Metals

Aluminum.—Egyptalum, which was an affiliate of the Holding Company for Metallurgical Industries, was the main producer of primary aluminum in Egypt from its aluminum smelter at Nag Hammady, which was located 100 kilometers (km) north of Luxor. The company completed a capacity expansion project at the smelter, which increased the aluminum production capacity to 320,000 metric tons per year (t/yr) from 266,000 t/yr. The expansion plan added a sixth potline and converted the existing Soderberg cells to anode cells. Other primary and secondary aluminum producers included Al Saad Aluminium Co., Arab Aluminium Co. S.A.E., Egyptian Aluminium Products Co. (Alumisr), Egyptian Copper Co. (a subsidiary of Metallurgical Industries Co. E.J.S.C), General Metals Co., and Helwan Company for Non-Ferrous Industries (Aluminium Company of Egypt, 2011).

Copper.—Gippsland completed drilling operations at the Abu Swayel prospect, which was a copper-nickel prospect located 160 km southeast of Aswan. The company identified a copper-nickel mineralization zone, including chalcopyrite, which varied in thickness from 4 to 18 meters (m) alongside historical sites that were mined by the ancient Egyptians. Egyptian Copper Co. and El Sewedy Industries Group produced secondary copper products (Gippsland Ltd., 2011, p. 7).

Gold.—In 2010, gold was produced from two mines in Egypt—The Hamash gold mine and the Sukari gold mine. In January, the Sukari Gold Mine Co. began exporting gold to an overseas gold refinery. The company mined 6.2 Mt of ore, processed 3.1 Mt of ore, and produced 4,674 kilograms (kg) of gold (reported as 150,289 troy ounces). The Sukari Gold Mine was an open pit mine located about 23 km southwest of Marsa Alam in Egypt's eastern desert and was the first modern large-scale open pit gold mine operating in Egypt. The mineral resources of the mine as of yearend 2010 were estimated to include measured reserves of 84 Mt of ore grading 1.42 grams per metric ton (g/t) gold; indicated reserves of 151.7 Mt of ore grading 1.47 g/t gold; and inferred reserves of 68.9 Mt of ore grading 1.60 g/t gold. Probable and proven mineral resources of the Sukari Mine increased to 9.1 million troy ounces [283 metric tons (t)] of gold from 7.1 million troy ounces (221 t) of gold at a cutoff rate of 0.4 g/t for oxide and sulfide material and 0.5 g/t for transitional material. Centamin moved forward with Stage 3

of the project to increase mill throughput by 25% to 5 Mt/yr from 4 Mt/yr, which is expected to be completed in 2011. The company began a scoping study to choose the best process flow route that would achieve a new mill throughput target of 10 Mt/yr. The result of the study indicated that the conventional semiautogenous grinding/ball mill grinding configuration would meet the desired target. Centamin expected to complete the goal of the Stage 4 expansion plan of 10 Mt/yr of mill throughput in 2012 (Centamin Egypt Ltd., 2011, p. 5–7).

Gippsland moved forward with exploration works at eight gold prospects and one copper-nickel prospect at the Wadi Allaqi region, which is located 250 kilometers (km) southeast of Aswan in the Eastern Desert. Gippsland's drilling program identified several mineralization areas, including at Seiga, which had an estimated inferred gold resource of 2,635 kg (Gippsland Ltd., 2011, p. 7).

Hamash Gold Mine, which is located 100 km west of Marsa Alam in southeastern Egypt, produced 465 kg of gold in 2010 compared with 60 kg of gold in 2009. The mine used a heap-leach production method and was operated by Hamash Egypt for Gold Mines, which was a 50-50 joint venture between Cypriot Matz Holdings of Cyprus and EMRA (Ministry of Petroleum, 2011).

In February, EMRA awarded the joint venture of Nuinsco Resources Ltd. (NWI) of Canada and Quartz Core Ltd. (QCC) a gold exploration license at the Bukari and the Umm Samra concessions. NWI and QCC established a joint venture, Z-Gold Resources, to conduct exploration activity at the Bukari and the Umm Samra concessions. The company finalized the Bukari concession agreement with EMRA and moved to finalize the Umm Samra concession agreement. The Bukari concession is located about 50 km northwest of the Sukari gold mine and has 18 known gold occurrences. Chemical assays of 66 samples from the Bukari concession contained an average of 3.35 g/t gold (Nuinsco Resources Ltd., 2011; Quartz Core Ltd. for Mineral Resources, 2011).

Alexander Nubia Inc. (ANI) of Canada held two exploration concessions in Egypt—the Abu Marawat and the Fatiri concessions—which are located in the Eastern Desert and together cover a total land area of 2,772 square kilometers. The Abu Marawat gold-copper-zinc-silver project was a concession that ANI acquired in an international competitive auction from Centamin in 2008. ANI drilled 79 diamond drill holes and planned to release estimates of the Abu Marawat's mineral resources in the first quarter of 2012 (Alexander Nubia Inc., 2011).

Iron and Steel.—In 2010, Al Ezz Steel Rebars S.A. (Ezz Steel), which accounted for about 40% of Egypt's steel market in 2010 and had the capacity to produce 5.8 Mt/yr of iron and steel products, put on hold a plan to build a second DRI plant that would have the capacity to produce 1.85 Mt/yr of DRI. In December, IDA issued steel production licenses to the National Company for Steel at Port Said, IIC for Steel Plant Management at Minya, Al-Marakbi at 6 October City, and Al Wataniya at Asyut. Ezz Steel was one of four companies that received permits to increase steel production capacity in Egypt in 2010. Other steel projects that were either delayed or put on hold in Egypt included the Alexandria Iron ore pelletizing plant and the

Ain Sukhna iron pelletizing plant, both of which were owned by Foulath Holding Co. of Bahrain, and the Egypt Steel plant, which would be owned by ArcelorMittal of Luxembourg (Ezz Steel, 2010; World Steel Association, 2011; Zawya, 2011).

National Steel Fabrication completed its Ain Sokhna steel fabrication plant. Taybah Steel moved forward with construction of its Gamasa steel plant, as did Suez Steel, which continued with the expansion of its steel plant. In June, IDA issued an ultimatum to ArcelorMittal to begin the construction by August at its 1.6-Mt/yr-capacity DRI plant in Egypt or risk losing the license that was issued in 2008.

Tantalum and Tin.—Tantalum Egypt J.S.C., which was a 50-50 joint venture of EMRA and Tantalum International Pty Ltd. (a wholly owned subsidiary of Gippsland), continued its preparation work to begin tantalum production at the Abu Dabbab and the Nuweibi tantalum-tin-feldspar deposits, which are located in southeastern Egypt near the Red Sea coast. These deposits have a combined Joint Ore Reserves Committee (JORC)-complaint resource of 142.5 Mt of ore at a cutoff rate of 100 g/t Ta₂O₅.

In 2010, the company began constructing a private free zone security fence around the Abu Dabbab site, which was leased from EMRA and complied with the regulations of the General Investment Authority. Tantalum Egypt was conducting revisions to the environmental impact assessment for the Abu Dabbab project. The company completed a survey for the Red Sea seabed in the coastal area near the intended location for the pathway of the seawater intake pipeline. Tantalum Egypt received the Government's approval to use Port Turumbi to export about 1.5 Mt/yr of feldspar, which the company expected to produce as a byproduct from the Abu Dabbab tantalum-tin mine. The company also planned to establish a new shiploading facility at Marsa Abu Dabbab on the Red Sea on an area located closer to the Abu Dabbab Mine site (Gippsland Ltd., 2011).

Gippsland intended to produce a high-purity tantalum synthetic concentrate, known as SynCon [a tantalum concentrate that contains 55% tantalum pentoxide (Ta₂O₅)]. In addition to tantalum pentoxide, the Abu Dabbab Mine was expected to produce 1,530 t/yr of tin metal in concentrate, which would be sold on the open market. Commissioning of production at the Abu Dabbab Mine was scheduled for 2012. The Nuweibi site contained 98 Mt of tantalum-tin-feldspar mineral resources, which was double that of the Abu Dabbab deposit, but the average Ta₂O₅ grade was 40% lower than that of Abu Dabbab. Given the size of identified resources of 142.5 Mt from the Abu Dabbab and the Nuweibi deposits, Gippsland expected to rank among the world's leading producers of tantalum for many years to come (Gippsland Ltd., 2011, p. 5).

Industrial Minerals

Cement.—Consumption of cement in Egypt increased by more than 3% to about 49.5 Mt in 2010 from about 47.8 Mt in 2009. Domestic production accounted for 96.7% of the country's consumption of cement, and the remaining 3.3% (1.64 Mt) was imported. Egypt was expected to add 13.5 Mt/yr of cement production capacity in 2010 and 2011 because of the commencement of the construction of seven 1.5-Mt/yr-capacity

greenfield cement plants and two 1.5-Mt/yr expansion lines. Thus, Egypt's production capacity for cement was projected to increase by 41% to 65 Mt/yr by 2012 compared with the current (2010) capacity of 46 Mt/yr (Thomson Reuters, 2010; International Cement Review, 2011, p. 116).

Arabian Cement Co., which was a joint venture of Cementos La Union S.A. of Spain and local investors, had a 1.4-Mt/yr-capacity clinker plant at Ramliya, Ain Al Sokhna. The company revised its mission from producing clinker only for export to cement production for sale to the local market; it commenced production of portland cement in April. Arabian Cement contracted FLSmidth Ventomatic S.p.A. of Italy to expand the production capacity by 2.2 Mt of clinker by building a second kiln line at the Ramliya plant (Arabian Cement Co., 2011).

El Nahda Cement plant was a new plant being built by Tianjin Cement Industry Design and Research Institute Co. Ltd. (a subsidiary of Sinoma International Engineering of China) in Qena. The plant would have the capacity to produce 2 Mt/yr of clinker and would cost \$302 million to build. El Nahda Company for Industries expected to commence production from El Nahda cement plant in 2011.

In November, IFC acquired a 15% stake in Alexandria Portland Cement Co. SAE (APCC). APCC had the capacity to produce 2 Mt/yr of cement. Titan Cement Egypt owned APCC as well as the Beni Suef cement plant. The company completed a capacity expansion at the Beni Suef cement plant to 1.5 Mt/yr of cement in 2009 (International Cement Review, 2011, p. 123).

Sinai White Portland Cement Co. S.A.E. completed a capacity expansion project at its plant located in northeastern Sinai about 50 km south the Mediterranean port of El Arish. Production capacity at the plant increased by 700,000 t/yr to 1.1 Mt/yr of white cement from 400,000 t/yr. The plant, which was majority owned (57%) by Aalborg Portland A/S of Denmark, sold its production on the domestic market and to such countries as Algeria, Morocco, and Syria (Aalborg Portland A/S, 2011, p. 22).

Nitrogen.—The combined ammonia and urea production capacities of nine Egyptian fertilizer companies was about 4.6 Mt/yr and 4.8 Mt/yr, respectively. These companies produced more than 4.2 Mt of ammonia and 5.0 Mt of urea and exported 669,000 t of ammonia and 3.2 Mt of urea (Arab Fertilizers Association, 2011, p. 19, 23).

MISR Fertilizer Production Co. S.A.E. (MOPCO), which completed the construction of a 675,000-t/yr-capacity urea plant at the Rehab Industrial Free Zone in Damietta, moved forward with building two additional urea trains to triple its capacity to 1.95 Mt/yr of urea by the end of 2012. MOPCO's wholly owned subsidiary Egyptian Nitrogen Products Company S.A.E. obtained a \$1.05 billion loan from a consortium of local banks to finance the expansion plan. Agrium Inc. of Canada, which held 26% interest in MOPCO in 2008 following the Government cancellation of the EAgrium nitrogen project, expected to acquire 507,000 t/yr of MOPCO's urea output and 39,000 t/yr of its net trade ammonia production after the expansion work is completed. Most of Agrium's share of the output would be sold through a subsidiary of Agrium Europe (Agrium Inc., 2011, p. 3).

Egypt Basic Industries Corp. (EBIC) commissioned a new ammonia plant at Ain Al-Sokhna near the city of Suez. The plant, which was majority owned (60%) by Orascom

Construction Industries S.A.E. (OCI), had the capacity to produce from 670,000 to 700,000 t/yr of ammonia for export. The plant received a \$229 million long-term guarantee from the Export-Import Bank of the United States. Egyptian Fertilizer Co.'s plant at the Ain Al Sokhna Port in the Gulf of Suez was undergoing a debottlenecking project, which was expected to increase the production capacity of urea to 1.6 Mt/yr from 1.3 Mt/yr by 2012. Egyptian Fertilizer was wholly owned by OCI (U.S. Trade and Development Agency, 2009, p. 13; Orascom Construction Industries, 2010).

Phosphate Rock.—In 2010, Egypt's output of phosphate rock decreased by about 26% to 4.6 Mt from 6.2 Mt in 2009. El Nasr Mining was the main producer of phosphate rock in Egypt. The company, which had the capacity to produce 3 Mt/yr of phosphate rock, produced 2.9 Mt and exported about 2.3 Mt of phosphate rock from the East Sebaya Mine, the West Sebaya Mine, the Red Sea Mine at El Qusier, and the Abu Tartur Mine in the Western Desert. Other companies that produced phosphate rock included El Wataneya, which had the capacity to produce 2.1 Mt/yr, and Misr Phosphate Co., which had the capacity to produce 1.2 Mt/yr. In 2010, El Wataneya produced 252,000 t and exported 67,000 t, and Misr Phosphate Co. produced 271,000 t and exported 64,000 t (Arab Fertilizers Association, 2011, p. 30).

Phosphate rock was transported by railway to Safaga Port on the Red Sea. El Nasr Mining owned two export ports on the Red Sea: Hamrawein Port, which had the capacity to load vessels of up to 35,000 t, and Abu Ghusun Port, which had the capacity to load vessels of up to 12,000 t. The New Valley phosphate project was one of the projects under development. It is located on the Abu Tartur plateau, at equal distance (650 km) from Cairo and the Port of Safaga on the Red Sea. Geologic explorations by EMRA indicated the presence of about 715 Mt of proven fresh phosphate rock reserves under an overburden 150 m thick, on average, that could be exploited underground using a fully mechanized long wall technique, as well as 20 Mt of weathered phosphate reserves that could be exploited using an open cast technique. Current production of phosphate rock at the Abu Tartur project was 1 Mt/yr of weathered phosphate (Arab Fertilizers Association, 2010).

Egyptian Financial & Industrial Co. (EFIC) produced phosphate-based fertilizers and sulfuric acid. In 2010, the company produced more than 650,000 t of superphosphate, 221,000 t of sulfuric acid, 163,000 t of ammonium sulfate, and 3,000 t of dicalcium sulfate. EFIC exported more than 200,000 t of its production (Egyptian Financial & Industrial Co., 2011).

Salt.—In September, El Nasr Salines Co., which operated the Burj Al-Arab and the Sebika facilities, completed the first phase of its two-phase expansion plan at the Sebika facility in El-Arish by increasing salt production capacity to 1.2 Mt/yr from 300,000 t/yr. The company pushed ahead with the second phase of the expansion plan and completed 80% of the work needed to increase salt production capacity to 2 Mt/yr by 2012. El Mex Salines Co., which operated two facilities at Port Said and El Mex, produced about 1.75 Mt/yr of salt and exported about 1.2 Mt of salt from July 2010 to February 2011 (El Mex Salinas Co., 2011; El Nasr Salines Co., 2011).

Natural Gas and Petroleum.—According to the Organization of Arab Petroleum Exporting Countries, 41 oil discoveries and 22 natural gas discoveries were reported in Egypt in 2010 compared with 40 oil and 24 natural gas discoveries in 2009. Three-fourths of Egypt's natural gas production came from Mediterranean Sea blocks where 78% of the country's gas reserves are located. The remaining reserves are located in the Western Desert (10%), the Gulf of Suez (8%), and the Nile Delta (4%). The Government's policy of intensifying gas and oil exploration activity during the past 6 years paid off. Egypt's proved natural gas reserves at the end of 2010 were estimated to be close to 2,466 billion cubic meters (Organization of Arab Petroleum Exporting Countries, 2011, p. 14, 20, 22).

In 2010, crude oil production averaged 554,300 bbl/d, which was slightly less than the average production of 564,300 bbl/d in 2009. The volume of marketed natural gas was 62.1 billion cubic meters, which was identical to that of 2009. The volume of Egypt's crude oil exports more than doubled to 102,300 bbl/d from 45,000 bbl/d in 2009. Egypt's crude oil production came from the Eastern Desert, the Gulf of Suez, the Mediterranean Sea, the Nile Delta, the Sinai Peninsula, and the Western Desert. Egypt, which had the capacity to process 975,000 bbl/d from its 10 petroleum refineries, planned to increase its petroleum refining capacity by an additional 600,000 bbl/d by year 2016 (U.S. Energy Information Administration, 2010; Organization of Arab Petroleum Exporting Countries, 2011, p. 18, 19, 57).

Some 75 companies were working on mineral fuels exploration and production in Egypt; 50 companies were operators, and 25 were partners with the Ministry of Petroleum. Among these companies, eight were local operators [General Petroleum Corp., Gharib Oil Services Co., Glob Oil, Masawa Co., Petzed Investment and Project Management Ltd. Co., Pico International Petroleum, Sahara Petroleum Services Co. S.A., Tharwa Petroleum Co., and Trident Petroleum Egypt]. The U.S. companies that had active hydrocarbons exploration programs in Egypt included Apache Egypt Co., El Paso Corp., Hess Corp., Merlon International Inc., and the IPR Group of Companies. The list of the United Kingdom companies that were conducting exploration oil and gas activities included Aminex p.l.c., BG Egypt S.A., BP Egypt, Burren Energy p.l.c., Dana Petroleum p.l.c., Europa Oil and Gas p.l.c., Melrose Petroleum Resources p.l.c., and Perenco North Sinai Petroleum Co. Ltd. The Canadian companies were Dover Petroleum Corp., Dublin International Petroleum (Egypt) Ltd., and Transglobe Energy Corp. Other companies included Al Thani Investments Group and Dana Gas P.S.C.G. (both of the United Arab Emirates); Arabian Oil Co. and Egyptian Petroleum Development Co. (both of Japan); CEPESA Egypt S.A. B.V. of Spain; Edison S.p.A. and Eni S.p.A. (both of Italy); ENAP Sipetrol S.A. of Chile; Gaz de France; Grey Stone Petroleum of Switzerland; Gujarat State Petroleum Corp. Ltd. of India; Hellenic Petroleum S.A., Kriti Oil and Gas. S.A., and Vegas Oil and Gas S.A. (all of Greece); Ina Industrial Nafta D.D Zagreb/Naftapljin of Croatia; Lukoil Co. of Russia; National JSC Naftogaz Ukrainy of Ukraine; Oil and Gas Corp. of South Africa (Pty) Ltd. (PetroSA); O.M.V. A.G.

of Austria and Pan Pacific Petroleum N.L. of Australia; Petrocorp Exploration Ltd. of New Zealand; Petroliam Nasional Berhad (Petronas) of Malaysia; Polskie Górnictwo Naftowe i Gazownictwo S.A. (PGNiG) of Poland; RWE-Dea A.G. of Germany; Shell Egypt N.V. of the Netherlands; Statoil ASA of Norway; and United Oil Inc. of Syria (Ministry of Petroleum, 2011).

Egypt had three operational liquefied natural gas (LNG) trains in Egypt. The first train was located at Damietta in the Eastern Nile Delta and was operated by CEPSA. The second train was located in Idku in the Western Nile Delta and was operated by Egyptian LNG (a joint venture of BG Egypt, EGAS, EGPC, Gaz de France, and Petronas). The third LNG train was located in the Mediterranean Gas Complex at Port Said and was jointly operated by BP Egypt and Eni (U.S. Department of State, 2010).

BP and RWE announced a joint investment of \$9 billion for the development of the North Alexandria and West Mediterranean deepwater gasfields, which were operated by BP. Production at the project, which would be owned by BP (60% interest) and RWE (40% interest), was expected to commence in 2014 (Hromadko, 2010).

Dana Gas Egypt held three exploration concessions in Egypt. It was the sole operator of two exploration concessions and a producer from 11 fields in the Nile Delta. The company was a joint operator with Kuwait International Oil & Environment Co. (50% ownership each) of an exploration concession and a development lease in Upper Egypt. Dana Gas moved forward with its exploration program, which had netted 16 natural gas discoveries in the Nile Delta in the past 4 years. During 2010, the company produced about 2.2 billion cubic meters of natural gas and 2.6 million barrels of liquids. The company planned to develop a new gas processing plant at the east Nile Delta, which was expected to increase total gas processing capacity in the Nile Delta to 11.3 million cubic meters per day in 2012. Dana gas also held 26.4% interest in a project to build a liquefied petroleum gas (LPG) recovery plant in the Gulf of Suez. The project was expected to commence production in 2011 (Dana Gas P.J.S.C., 2011, p. 8, 10).

The Egyptian Refining Co. was a partnership company of Cairo Oil Refining Co. (CORC) (40%), G.S. Engineering and Construction Corp. of the Republic of Korea (30%), and Mitsui and Co. of Japan (30%) created to build a \$3.7 billion hydrocracking and coking refinery. The new refinery would be located next to the existing state-owned refinery in the Greater Cairo District of Mostorod; the new refinery would produce lighter petroleum products, such as diesel and LPG in a more efficient fashion and would emit less sulfur dioxide to the environment. Refinery products from both the new refinery and the upgraded existing refineries would be oftaken by EGPC and delivered to consumption points in Cairo. The private equity company of Citadel Group was a majority stakeholder (85% interest) and EGPC held the remaining share (15% interest). The IFC approved a \$120 million investment in the proposed Egyptian Refinery Co. project (Alexander's Gas & Oil Connections, 2010c).

EGPC signed a memorandum of understanding with Rong Chang Chemical Co. Ltd. of China and an unnamed Chinese Government-owned company to construct a new oil refinery

in Egypt that would produce 15 Mt/yr of refined petroleum products during the first stage of the project with an option to double production at the end of the second stage. The \$2 billion oil refinery would be funded, built, operated, and owned by the two Chinese companies for 25 years, and the ownership and operation would be gradually transferred to EGPC (Alexander's Gas & Oil Connections, 2010b).

Renewable Energy.—The Government moved forward with its plan to meet 80% of the country's future energy demand from conventional energy sources and 20% from renewable energy sources (including 12% from wind energy) by the year 2020. OCI was building the 150-megawatt (MW)-capacity powerplant at Kureimat, which is located 95 km south of Cairo. The Kureimat Integrated Solar Combined Cycle Power Project was expected to commence production in 2013. It would use both natural gas and solar energy to generate electricity. The Government announced a plan to build another solar plant in the Kureimat area and to develop wind power along the Red Sea coast. The Government expected that the World Bank and the African Development Bank would finance at least some of the \$700 million that the solar powerplant would cost. The Zafarana wind farm, which was Egypt's first wind-energy facility, had a total capacity of 360 MW by yearend 2008. The farm, which was built by Gamesa Corporación Tecnológica S.A. of Spain, Nordex A.G. of Germany, and Vestas Wind Systems A/S of Denmark, was undergoing a capacity expansion to increase capacity to 545 MW by 2010. The World Bank allocated a \$220 million loan for building 250-MW wind powerplants near the Gulf of Suez. In June, the World Bank approved a \$600 million loan for establishing a natural gas powerplant north of Giza (Alexander's Gas & Oil Connections, 2010a, d; Wind Power Works, 2010).

Outlook

The Egyptian mineral industry has enormous growth potential for the next decade owing to the country's abundant mineral resources—especially gold, natural gas, phosphate rock, and tantalum—and the increased demand for steel reinforcing bar and cement by the construction sector. Domestic demand for cement and steel is expected to increase in the short term as 524,000 low-cost residential units are being built throughout the country and expected to be completed by 2012. Egypt expects to be a major producer of gold and tantalum in the next 5 years. The passage by the newly elected Parliament of the proposed mining law, which was drafted with the help of the World Bank, could reduce bureaucracy, enhance transparency, and facilitate financing to mineral industry projects.

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TABLE 1
EGYPT: PRODUCTION OF MINERAL COMMODITIES¹

(Thousand metric tons unless otherwise specified)

| Commodity ² | 2006 | 2007 | 2008 | 2009 | 2010 |
|--|--------------------|--------------------|---------------------|----------------------|------------------|
| METALS | | | | | |
| Aluminum metal | | | | | |
| Primary ^e | 200 | 220 | 220 | 220 | 220 |
| Secondary ^e | 50 | 110 | 170 | 180 | 180 |
| Copper, refined, secondary | 3 ^r | 2 | 3 | 3 | 3 |
| Gold kilograms | -- | -- | -- | 95 ^r | 4,607 |
| Iron and steel: | | | | | |
| Iron ore and concentrate, gross weight | 665 ^r | 773 ^r | 1,780 ^r | 195 ^{r,3} | 256 ³ |
| Metal: | | | | | |
| Pig iron | 1,100 | 1,000 | 900 | 800 | 600 |
| Direct-reduced iron | 3,100 | 2,800 | 2,600 | 3,100 | 3,000 |
| Steel, crude | 6,004 | 6,224 | 6,198 | 5,500 ^r | 6,700 |
| Ferrous alloys: | | | | | |
| Ferromanganese ^e | 30 | 30 | 30 | 30 | 30 |
| Ferrosilicon ^e | 50 | 48 ^r | 59 ^r | 78 | 78 |
| Manganese ore, gross weight | 17 | 21 ^r | 17 ^r | 3 | 11 |
| Titanium, ilmenite | 120 | 108 | 88 | 88 | 11 |
| INDUSTRIAL MINERALS | | | | | |
| Barite metric tons | 500 ^e | 504 ^r | 1,556 ^r | 1,100 ^{r,3} | 6,100 |
| Cement, hydraulic, all types | 36,100 | 38,469 | 39,800 ^r | 41,785 | 43,874 |
| Clays: | | | | | |
| Bentonite ^e | 30 | 30 | 32 | 32 ^{r,3} | 27 |
| Fire clay ^e | 300 | 300 | 300 | 300 | 300 |
| Kaolin | 416 | 332 | 523 | 523 | 304 |
| Feldspar, crude | 360 | 135 | 169 | 354 | 406 |
| Fluorspar metric tons | 550 | 550 ^r | 550 ^r | 500 | 470 |
| Gypsum | 827 ^e | 178 ^r | 456 ^r | 735 ^r | 840 |
| Iron oxide pigments | NA | 39 | 26 | 30 | 30 |
| Lime ^e | 800 | 1,000 | 1,000 | 800 | 800 |
| Mica cubic meters | NA | 395 | 100 | 100 | 100 |
| Nitrogen: | | | | | |
| Ammonia, N content ^e | 1,957 ³ | 2,000 | 2,500 | 1,790 | 2,610 |
| Urea, N content ^e | 1,300 | 1,500 | 2,000 | 1,120 | 5,100 |
| Phosphate: | | | | | |
| Phosphate rock | 2,177 | 3,890 | 5,523 | 6,227 | 4,622 |
| P ₂ O ₅ content | 653 | 1,167 | 1,657 | 1,868 | 1,400 |
| Sodium compounds: | | | | | |
| Salt | 1,081 | 1,879 ^r | 2,952 ^r | 2,666 | 2,800 |
| Soda ash ^e | 50 | 50 | 50 | 50 | 50 |
| Sodium sulfate ^e metric tons | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 |
| Stone, sand and gravel: | | | | | |
| Basalt thousand cubic meters | 250 | 150 | 235 | 0 | 243 |
| Dolomite | 220 ^r | 190 ^r | 108 ^r | 93 ^r | 949 |
| Granite, dimension stone thousand cubic meters | 15,000 | 40 | 4 | 59 ^r | 1 |
| Limestone and similar do. | 25,000 | 28,103 | 35,570 | 1,914 | 1,914 |
| Marble (includes alabaster) blocks | 400 | 427 | 284 | 284 | 401 |
| Quartz | 9 ^r | 8 ^r | 8 ^r | 34 ^r | 35 |
| Sand: ^e | | | | | |
| Industrial sand (glass sand) thousand cubic meters | 403 ^r | 327 ^r | 384 ^r | 410 ^r | 845 |
| Sand and gravel do. | 475 ^r | 420 ^r | 440 ^r | 266 ^r | 400 |
| Sandstone do. | 67 ^r | 537 ^r | 217 ^r | 45 ^r | 60 |
| Sulfur: | | | | | |
| Elemental, byproduct | 16 | 28 | 24 ^r | 32 | 29 |
| Sulfuric acid, S content ^e | 200 | 200 | 200 | 220 | 220 |
| Talc, soapstone, pyrophyllite | 40 ^e | 67 ^r | 69 ^r | 44 | 48 |
| Vermiculite | 12 ^e | 6 | 8 | 5 | -- |

See footnotes at end of table

TABLE 1—Continued
EGYPT: PRODUCTION OF MINERAL COMMODITIES¹

(Thousand metric tons unless otherwise specified)

| Commodity ² | 2006 | 2007 | 2008 | 2009 | 2010 |
|-------------------------------------|----------------------|----------------------|----------------------|----------------------|---------------------|
| MINERAL FUELS AND RELATED MATERIALS | | | | | |
| Coal ^e | 300 | 360 | 360 | 300 | 300 |
| Coke | 1,400 | 1,074 | 1,439 | 886 | 1,423 |
| Gas, natural: | | | | | |
| Gross production | 54,700 | 55,700 | 59,000 ^r | 62,700 ³ | 61,300 ³ |
| Dry ^e | 23,700 | 37,000 | 40,000 | 43,059 ³ | 43,059 ³ |
| Natural gas liquids | 23,725 | 25,660 | 45,990 | 45,260 | 45,260 ³ |
| Petroleum: | | | | | |
| Crude, including condensate | 254,405 ^r | 259,450 ^r | 263,530 ^r | 270,830 | 268,640 |
| Refinery products: | | | | | |
| Liquefied petroleum gas | 5,000 ^r | 6,300 ^r | 7,000 ^r | 5,300 ^r | 5,300 |
| Gasoline | 25,700 ^r | 28,200 ^r | 34,400 ^r | 38,400 ^r | 34,400 |
| Kerosene and jet fuel | 11,500 ^r | 12,500 ^r | 11,600 ^r | 13,100 ^r | 13,800 |
| Distillate fuel oil | 45,800 ^r | 46,100 ^r | 48,500 ^r | 48,700 ^r | 53,500 |
| Residual fuel oil | 77,900 ^r | 75,900 ^r | 79,600 ^r | 69,800 ^r | 65,800 |
| Lubricants | 2,600 ^r | 1,800 ^r | 1,900 ^r | 2,600 ^r | 2,600 |
| Asphalt ^e | 6,000 ^r | 5,400 ^r | 5,600 ^r | 3,200 ^r | 5,600 |
| Other ^e | 22,400 ^r | 24,400 ^r | 15,400 ^r | 4,500 ^r | 21,400 |
| Total | 196,900 ^r | 200,600 ^r | 204,000 ^r | 185,600 ^r | 202,400 |

^eEstimated data are rounded to no more than three significant digits; may not add to totals shown. ^rRevised. do. Ditto. NA Not available. -- Zero.

¹Table includes data available through December 31, 2011.

²In addition to those listed, Egypt produced a number of commodities for which data were unavailable, including gemstones; a number of metals, such as lead (which was produced from recycled material), and zinc; and manufactured mineral commodities, such as carbon black and glass.

³Reported figure.

TABLE 2
EGYPT: STRUCTURE OF THE MINERAL INDUSTRY IN 2010

(Thousand metric tons unless otherwise specified)

| Commodity | Major operating companies and major equity owners | Location of main facilities | Annual capacity |
|--------------------------|---|-----------------------------|---|
| Aluminum | Aluminium Co. of Egypt (Egytalum) (Government, 80%, and private interests, 20%) | Nag Hammadi | 266. |
| Aluminum, secondary | The Egyptian Copper Co. (Holding Company for Metallurgical Industries) | Alexandria | 50. |
| Do. | Arab Aluminium Co. S.A.E. | Ismaelia | 15. |
| Do. | Egyptian Aluminium Products Co. (Alumisr) | Cairo | 12. |
| Do. | Egyptian Metal Works | do. | NA. |
| Do. | General Metals Co. | do. | 6. |
| Do. | Helwan Company for Non-Ferrous Industries | Helwan | 45. |
| Do. | Al Saad Aluminium Co. | Mostorod | 10. |
| Do. | Al Qantara for Ferrous Metals Co. | Suez | 25. |
| Carbon black | Alexandria Carbon Black Co. (Egyptian Holding Co. for the Chemical Industry, 49%; Inco-Bharat, 36%; Grasim Industries 15%) | do. | 20. |
| Cement | Egyptian Cement Co. (Lafarge S.A., 54%; private interests, 26%; Holcim Ltd., 20%) | 70 kilometers east of Cairo | 10,000. |
| Do. | Amirya Cement Co. [Cimentos de Portugal, SGPS, S.A. (Cimpor)] | do. | 4,450. |
| Do. | Assuit Cement Co. (Cemex Egypt) | Assiut | 4,752. |
| Do. | Arab Swiss Engineering Co. (ASEC) (Suez Cement Co., 68.7%) | Helwan | 3,615. |
| Do. | TITAN Cement Egypt (TITAN Cement Co., 100%) | Alexandria and Beni Suef | 3,300. |
| Do. | Suez Cement Co. (Cements Français S.A., 54.2%) | Suez | 4,200. |
| Do. | Helwan Cement Co. (Suez Cement Co., 98.69%) | Helwan | 4,500. |
| Do. | Torah Portland Cement Co. (Suez Cement Co., 66.12%) | Torah | 4,625. |
| Do. | Alexandria Portland Cement Co. (Government, 77%, and private interests, 23%) | El Mex | 800. |
| Do. | National Cement Co. (Government, 77%, and private interests, 23%) | El Tabbin | 3,100. |
| Do. | Misr Beni Suef Cement Co. | Beni Suef | 2,800. |
| Do. | Misr Cement Co. (Qena) | Qena | 1,400. |
| Do. | Sinai Cement Co. (Vicat) | Sinai | 1,500. |
| Do. | South Valley Cement Co. | do. | 1,400. |
| Do. | Sinai White Cement Co. | do. | 410. |
| Do. | Arabian Cement Co. (Cementos La Union S.A.) | El Ain El Sokhna | 5,000. |
| Coke | El Nasr Coke and Chemical Co. (Government, 100%) | Helwan | 1,400. |
| Fertilizers, nitrogenous | Abu Qir Fertilizer & Chemical Industries Co. [Private and public interests, 80.9%, and Egyptian General Petroleum Corp. (EGPC), 19.1%] | Abu Qir A | 565 (ammonia), 365 (urea). |
| Do. | do. | Abu Qir B | 876 (urea). |
| Do. | do. | Abu Qir C | 330 (ammonia), 640 (urea). |
| Do. | Alexandria Fertilizer Co. (Alexfert) (private, 80%, and Abu Qir Fertilizer & Chemical Industries Co., 20%) | Alexandria | 730 (ammonia), 720 (urea). |
| Do. | El Nasr Fertilizers and Chemicals Co. (SEMADCO) (Government, 100%) | Attaka, Suez | 132 (ammonia), 193 (nitric acid), 200 (ammonia nitrate). |
| Do. | Egyptian Chemical Industries KIMA ASWAN (Chemical Industries Holding Co., 55.7%; public organizations, 39.2%; private investors, 5.5%) | Aswan | 330 (ammonia), 600 (nitric acid), 800 (ammonium nitrate). |
| Do. | Egyptian Fertilizers Co. (Orascom Construction Industries, 100%) | Ain Al Sokhna, Suez | 800 (ammonia), 1,300 (urea). |
| Do. | EL Delta Company for Fertilizers and Chemical Industries (ASMEDA) (Government, 100%) | Talkha, Mansoura | 400 (ammonia), 297 (nitric acid), 570 (urea). |
| Do. | Helwan Fertilizer Co. (private) | Free Zone, Helwan | 400 (ammonia), 650 (urea). |

See footnotes at end of table.

TABLE 2—Continued
EGYPT: STRUCTURE OF THE MINERAL INDUSTRY IN 2010

(Thousand metric tons unless otherwise specified)

| Commodity | | Major operating companies and major equity owners | Location of main facilities | Annual capacity |
|--|------------------------------|---|--------------------------------|--|
| Fertilizers, nitrogenous— Continued | | Misr Fertilizer Production Co. S.A.E. (MOPCO) [Egyptian Petrochemical Holdings Co. (ECHEM), 30.75%; Agrium Inc., 26%; National Investment Bank, 12.82%; Egyptian Natural Gas Holding Co. (EGAS), 7.62%; others, 22.81%] | Free Zone, Damietta | 876 (ammonia), 1425 (urea). |
| Fertilizers, phosphatic | | Abu Zaabal Fertilizers and Chemicals (private, 100%) | Qalyubiyah | 550 (superphosphate), 180 (triple superphosphate), 60 (phosphoric acid). |
| Do. | | Egyptian Financial and Industrial Co. (private, 100%) | Kafr El Zayat | 900 (superphosphate). |
| Do. | | do. | Assuit | 750 (superphosphate). |
| Do. | | Polyserve for Fertilizers and Chemicals (private, 100%) | Cairo | 320 (superphosphate). |
| Do. | | Suez Company for Fertilizers Production (Egyptian Financial and Industrial Co., 99.8%) | Ain Al-Sokhna | 300 (superphosphate), 20 (dicalcium phosphate). |
| Ferrosilicon | | Egyptian Ferroalloys Co. | Idfo, Aswan | 50. |
| Fluorspar | metric tons | Egyptian Company for Mineral Resources (ECMR) | NA | 4500. |
| Gold | | Cypriot Matz Holdings | Hamash | 60. |
| Do. | | Centamin Egypt Ltd. | Sukari Hill | 5,270. |
| Ilmenite | | El Nasr Mining Co. | NA | 120. |
| Do. | | Misr Quarries Development Co. | NA | NA. |
| Do. | | Egyptian Company for Mineral Resources (ECMR) | NA | NA. |
| Iron: | | | | |
| Ore | | Egyptian Iron and Steel Co. (Government, 100%) | El-Gedida Mine, El Bahariya | 1,200. |
| Oxide | | El-Nasr Mining Co. (Holding Company for Metallurgical Companies, 100%) | Mines near Sinai and Aswan | 150. |
| Methanol | | El Delta Co. for Fertilizers & Chemical Industries | Talkha | 24. |
| Natural gas | million cubic meters | Egyptian General Petroleum Corp. (EGPC) (Government, 100%) | Abu Madi | 3,800. |
| Do. | do. | do. | Badreddin-3 | 3,000. |
| Do. | do. | do. | Abu Qir/Naf | 1,900. |
| Do. | do. | do. | Ras Shukheir | 1,600. |
| Do. | do. | Grupo Khalda (Repsol YPF, S.A., 50%; Apache Oil Co., 40%; Samsung Corp., 10%) | Khalda | 24. |
| Petroleum: | | | | |
| Crude | million 42-gallon barrels | Gulf of Suez Oil Co. [Egyptian General Petroleum Corp. (EGPC), 50%, and BP Amoco, 50%] | October, Suez Gulf | 45. |
| Do. | do. | do. | El Morgan, Suez Gulf | 27. |
| Do. | do. | Belayim Petroleum Co. [Egyptian General Petroleum Corp. (EGPC), 50%, and International Egyptian Oil Co., 50%] | Belayim, Suez Gulf | 65. |
| Do. | do. | Suez Oil Company [Egyptian General Petroleum Corp. (EGPC), 50%; Deminex SA, 25%; Repsol YPF S.A., 25%] | Ras Budran, Suez Gulf | 15. |
| Pipeline | do. | Arab Petroleum Pipeline Co. (Governments of Egypt, 50%; Saudi Arabia, 15%; Kuwait, 15%; United Arab Emirates, 15%; Qatar, 5%) | Ain al-Sokhna to Sidi Kir | 875. |
| Refined | do. | Cairo Oil Refining Co. (Government, 100%) | Mostorod | 52. |
| Do. | do. | do. | Tanta | 12. |
| Do. | do. | Alexandria Petroleum Co. (Government, 100%) | Alexandria | 46. |
| Do. | do. | El-Nasr Petroleum Refining Co. (Government, 100%) | Suez | 25. |
| Do. | do. | do. | Wadi Feiran, Sinai | 4. |
| Do. | do. | Ameriya Petroleum Refining Co. (Government, 100%) | Ameriya | 27. |
| Do. | do. | Suez Petroleum Processing Co. (Government, 100%) | Suez | 25. |
| Do. | do. | Asyut Petroleum Refining Co. (Government, 100%) | Asyut | 27. |
| Do. | do. | Middle East Oil Refinery [Egyptian General Petroleum Corp. (EGPC), 78%; Petroleum Projects and Technical Consultations Co. (Petrojet), 10%; others, 12%] | Sidi Kerir | 36. |

See footnotes at end of table.

TABLE 2—Continued
EGYPT: STRUCTURE OF THE MINERAL INDUSTRY IN 2010

(Thousand metric tons unless otherwise specified)

| Commodity | Major operating companies and major equity owners | Location of main facilities | Annual capacity |
|----------------|--|--|-----------------|
| Phosphate rock | El-Nasr Mining Co. (Holding Company for Metallurgical Companies, 100%) | Mines at East Sabaiya, West Sabaiya, and El Qusier | 3,500. |
| Do. | Misr Phosphate Co. | Abu Tartur | 1,000. |
| Do. | National Company for Mining and Quarries (Elwataneya) | Aswan | 400. |
| Quartz | El-Nasr Mining Co. (Holding Company for Metallurgical Companies, 100%) | NA | 235. |
| Do. | Misr Quarries Development Co. | Attaka Mountain | NA. |
| Do. | Egyptian Company for Mineral Resources (ECMR) | Branice near Marsa Alam | NA. |
| Steel | | | |
| Crude | Ezz El-Dekheila Steel Co. (EZDK) (Al Ezz Steel Rebars S.A., 53.2%) | Alexandria | 2,200. |
| Do. | Egyptian Iron and Steel Co., Hadisolb (Government, 100%) | Helwan steel plant | 600. |
| Manufactured | Ezz El-Dekheila Steel Co. (EZDK) (Al Ezz Steel Rebars S.A., 53.2%) | Alexandria | 3,000. |
| Do. | Beshay Steel Group | Sadat City | 2000. |
| Do. | Al Ezz Flat Steel Co. | Suez | 1000. |
| Do. | Egyptian Iron and Steel Co., Hadisolb (Government, 100%) | Helwan steel plant | 1,000. |
| Do. | Al Ezz Steel Rebars S.A. | Sadat City | 1,000. |
| Do. | Al Ezz Rolling Mills | Tenth of Ramadan City | 500. |
| Do. | Delta Steel Mill Co. | Qalyubiyah | 200. |
| Do. | Kandil Steel | Tenth of Ramadan City | 1,000. |
| Do. | Suez Steel Co. | Suez | 500. |
| Do. | National Port Said Steel | Port Said | 400. |
| Do. | Misr National Steel Co. | Heliopolis | 360. |
| Do. | Kouta Steel Group | Port Said | 360. |
| Sulfuric acid | Abu Zaabal Fertilizers and Chemicals (private, 100%) | Qalyubiyah | 350. |
| Do. | Egyptian Financial and Industrial Co. (private, 100%) | Kafr El Zayat | 175. |
| Do. | do. | Assuit | 210. |
| Do. | Suez Company for Fertilizers Production (Egyptian Financial and Industrial Co., 99.8%) | Ain Al-Sokhna | 425. |
| Do. | El-Nasr Co. for Fertilizer & Chemical Industries (SEMADCO) | Attaka | 90. |
| Do. | Middle East Oil Refinery (MIDOR) | Amreya Free Zone | 65. |
| Talc | El Nasr Mining Co. | Aswan | 50. |
| Do. | TAS Flowrance Group | do. | NA. |
| Do. | Egyptian Company for Mineral Resources (ECMR) | South Eastern Desert | NA. |

Do., do. Ditto. NA Not available.