

THE MINERAL INDUSTRY OF

EGYPT

By Staff

Egypt has a mining history that extends back to ancient times. Historical production has been mainly of construction materials (clay, dimension stone, gypsum), materials for glass, gemstones, and ores for such metals as copper, gold, iron, and zinc. In recent decades, Egypt's mineral output has been led by crude petroleum, natural gas, and refined petroleum products; the construction materials sector, however, has remained very important and is today (1999) led by the production of cement. Egypt has a modest output of primary aluminum, steel, and ferroalloys and has a secondary (remelt) production of copper, lead, and zinc. The country also has a significant output of glass and glass raw materials and fertilizers. Mineral commodities production is summarized in table 1.

In 1999, Egypt's population was about 65 million and was the second largest in Africa. Most of the population, as well as industry and infrastructure, was within a few miles of the Nile River and thus formed a large concentrated market for minerals and other commodities. Egypt had a well-diversified economy, with industry, overall, contributing about 30% of the country's gross domestic product (GDP), which was approximately \$89 billion¹ in 1999. Because so much of Egypt's mineral output was in the form of value-added products and some minerals industries are assigned to general "manufacturing industry" rather than to "mining" national economic data, gauging the true contribution of the minerals sector to the GDP is difficult, but various data compendia suggest a total contribution in the range of 10% to 15%. Within the total, crude petroleum and refined derivatives sales revenues in 1999 were equivalent to about 5% of the GDP (U.S. Department of State, 2000). This was down from more-typical levels of about 7% because of low oil prices during much of the year. Egypt's total exports in 1999 were about \$4.4 billion, and imports of goods amounted to about \$17 billion. Petroleum and related products accounted for about 23% of total exports and 7% of imports; in years of higher oil prices, the contribution to exports has been as much as 50%. Although data are incomplete, the nonfuel mineral component of trade is estimated to be about 10% of exports and imports.

In recent decades, most mineral production has been by parastatals, but this has been changing during the 1990's as the Government has enacted programs to encourage foreign and private domestic investment in the minerals sector, such as guarantees to purchase natural gas produced by foreign companies and by embarking on a major privatization program. Privatization and/or private development of new facilities has been especially pronounced in the steel, cement, and fertilizer industries (table 2). Government's promotion of settlement and industrial development of hitherto underpopulated parts of the

country, particularly near Aswan and in the Sinai, has resulted in a major construction boom. Egypt faced a variety of environmental problems associated with its high population density and associated industrial concentration. Air pollution from motor vehicles, industry, and power generation was of major concern, particularly in Egypt's larger cities. To help reduce pollution levels, much of the country's oil-fired thermal powerplant capacity was being switched over to natural gas, and the populace was being encouraged to convert their motor vehicles, where possible, to allow for the use of compressed natural gas fuel. This increased and diversified use of natural gas has the added benefits of reducing the country's output of carbon dioxide and of freeing up more of Egypt's refined petroleum products output for export. Remaining air pollution problems included emissions from a variety of industries, which included those from a variety of producers of secondary (remelted) lead and other metals.

The structure of Egypt's mineral industries is shown in table 2. State ownership in the sector was generally through parastatals whose shareholders were a variety of holding companies and/or State-owned financial institutions. Although retaining dominance in the energy minerals subsector, Government participation in the other subsectors was being reduced through privatization.

Primary aluminum output was all by the Aluminium Co. of Egypt (Egytalum), which was one of the largest aluminum reduction plants in Africa. Small private sector companies had additional, secondary, aluminum production. In early 1998, a 20% stake in Egytalum was privatized, and in June that year, an initial letter of agreement was signed with Alcoa Inc. regarding the possibility of Alcoa purchasing a majority stake in the company. A further letter of intent was signed by the two companies in August 1999, and a final agreement was predicted for early 2000 (Alcoa, 1999). Egytalum was in the process of expanding capacity to about 230,000 metric tons per year (t/yr).

Copper production in Egypt was in the form of small-scale remelting and secondary refining of scrap metal. In the public sector, the Egyptian Copper Works in Alexandria was reportedly one of the main producers, although output data for it were unavailable. In the private sector, the largest refiner was Egyptian Metal Works Co. in Helwan, which had capacity to produce about 6,000 t/yr of a medium purity product by fire refining, and was upgrading to an 8,000-t/yr tankhouse (electrolytic) line capable of producing high-purity metal. The company expected that the improved metal purity to make the company's products (mostly wire) more competitive against imports (Metal Bulletin Monthly, 2000).

In 1999, Egypt had no gold production, but there has been intermittent exploration interest in gold over the years, particularly in the old gold districts in the Red Sea coast region.

¹Where necessary, values have been converted from Egyptian pounds (££) to U.S. dollars (\$) at the rate of ££3.4=\$1.00.

In this region, Australian company Centamin Egypt Ltd. continued infill drilling on the Amun Zone prospect on the Sukari Concession near Mersa Alam. The concession contains the Sukari and several other old gold mines, some of which were worked in antiquity. The Amun Zone is at the Sukari Mine and has been the most promising prospect on the concession. Substantial preliminary gold resources for the Amun Zone were published by the company in October 1998; these were further delineated by the additional drilling in 1999. Centamin expected to have sufficient data to be able to release a more detailed resource assessment in 2000 and, later, a bankable feasibility study with respect to developing an open pit mine on the property (Register of Australian Mining, 2000). The company also continued to explore for gold in other parts of the Sukari Concession and three other large concessions that it held in the same general region.

Egypt was experiencing strong growth in demand for steel, both for long products for the booming construction sector and flat products for industrial equipment and consumer goods. The demand growth has spurred large private investments in the sector but has also led to an influx of inexpensive imports that have hurt the profitability of the domestic producers. The Egyptian steel industry had two integrated facilities. Alexandria National Iron and Steel Co. (ANSDK)² produced direct reduced iron (DRI) from imported iron ore and using locally produced natural gas as reductant. The DRI was fed into electric arc furnaces, along with a small charge of scrap steel. Traditionally, ANSDK's steel billet was formed into long products, but in November 1999, the company became the country's second flat products producer when it commissioned a 1-million-metric-ton-per-year (Mt/yr) DRI-fed hot strip mill with a thin-slab caster (Karpel, 2000a). The Egyptian Iron and Steel Co. (HADISOLB) operated the only blast furnaces in the country and produced a wide range of long and flat products. HADISOLB obtained its iron ore feed from its own distant, low-grade deposits. The company has been facing rapidly rising transportation costs for its ore and the metallurgical coke that it purchased from its affiliate, El-Nasr Coke Co., and has been unable to pass on these costs in the face of large volumes of inexpensive imported steel coming onto the local market. To reduce costs, the company closed the smaller two of its four blast furnaces in late 1998, although one was refired in 1999. One of the large blast furnaces was shut down temporarily in 1999 for rebricking and other maintenance (Metal Bulletin, 1999). Company plans to increase the capacity of the two larger blast furnaces were being reexamined in light of the current difficult market conditions.

Al-Ezz Heavy Industries Co., an affiliate of the large reinforcing bar company Al-Ezz Steel Rebars Co., was constructing a 1.2-Mt/yr thin-slab caster and coil mill near Suez (Karpel, 2000a). Towards yearend 1999, a new private sector company—the Arab Co. for Special Steel—began hot testing at its Sadat City plant. This facility was the only producer of specialty steels, including stainless, in the country. Commercial production was expected to start in early 2000 with an output

²Many Egyptian company and place names are transliterations and/or translations from Arabic and have variable spellings that depend on the literature source. Likewise, common acronyms for some of these companies evidently correspond to the transliterated Arabic names rather than to their English translations.

for the year of 60,000 metric tons (t). Full-capacity production of 160,000 t was expected to be reached in 2003 (Karpel, 2000b), and about half of the output was to be exported. Another private sector company—the Arab Steel Factory—was building a DRI plant at Port Said. The planned capacity was 600,000 t/yr, much of which would supply the company's 400,000 t/yr billet plant at 10th of Ramadan City; the remainder would be exported (Karpel, 2000a).

Aswan Development & Mining Co. and the affiliated Aswan Iron & Steel Co. comprised a multinational consortium formed to build an integrated iron and steel mill and mine complex to exploit iron deposits near Aswan. The consortium was awarded a 30-year mining concession that covered the iron deposits in 1998. Tenders went out in 1999 for the development and operational contract for the mine (Middle East Economic Digest, 1999c).

In contrast to its modest output of metals, Egypt was a major and growing producer of hydraulic cement; in 1999, its production ranked 15th in the world. As was the case a few years ago in Turkey, the Egyptian cement industry has been one of the major targets of Government privatization policies. Egyptian investors (chiefly construction firms) and major international cement companies have found Egyptian cement plants attractive investments. This was because of the country's strong and growing geographically focused market, prospects for long-term market expansion owing to the Government's construction plans for the Sinai and other areas, and abundant cement raw materials and fuel (natural gas) resources near to the existing plants. Bidding has been lively on parastatal plants offered for privatization and post acquisition investment in upgrading them has been extensive. Likewise, plans have been mooted for several new plants. Since 1995, cement consumption has grown by an average of 11% per year although it was expected to moderate to about 8% per year for the period 2000 to 2005. As of mid-1999, per capita consumption was 429 kilograms per year, compared with 346 kilograms in mid-1998 (International Cement Review, 2000a).

Privatization of the cement sector has been intermittent. Prior to 1994, the Government owned all the cement companies except for Suez Cement, which was considered to be private notwithstanding that its shareholders included a number of State-owned enterprises. In 1994, partial (26% to 52%) equity stakes in Alexandria Portland Cement Co., Ameriyah Cement Co., Helwan Portland Cement Co., and Tourah Portland Cement Co. were privatized. In 1999, the Government sold a 73.6% stake in Alexandria Portland to Blue Circle Industries Plc. of the United Kingdom (World Cement, 2000); a 90% stake in Assiut Cement Co. was sold to Cemex, S.A. de C.V. of Mexico (Cemex, S.A. de C.V., 1999); and a 75% stake in National Cement Co.'s Beni Suef cement plant was sold to a 50-50 joint venture between Lafarge of France and Titan Cement Co. of Greece (Lafarge, 1999). The Ameriyah and the Tourah cement companies were expected to be privatized in 2000.

Several of the existing cement plants were upgrading their capacities, and several new plants were under construction or planned. Egyptian Cement Co., a joint venture principally between local Orascom Construction Industries Co. and Holderbank Financière Glaris Ltd. of Switzerland, fired its first kiln at its new plant near Suez in late 1998 and its second kiln in

September 1999. A third kiln was scheduled to be fired up in 2000 and a fourth was scheduled to come online in 2001 or early 2002. The kilns were all identical, each having a capacity of 1.4 Mt/yr clinker (International Cement Review, 2000a, b). Misr Beni Suef was a new plant of approximately 1.3 t/yr clinker capacity that was scheduled to come on line in mid-2001 at Beni Suef (World Cement, 1999). Sinai Cement Co., a consortium of mostly Egyptian investors, was constructing a 1.4 Mt/yr (clinker) cement plant that was due on-line in 2000. Because the company's limestone reserves include material suitable for white cement, Aalborg Portland White A/S of Denmark was brought in as a 40% partner on the adjacent white cement plant, Sinai White Portland Cement Co.; the 340,000-t/yr-capacity (clinker) plant was due online in late 2001 (Hargreaves, 2001). A locally funded 1.4-Mt/yr clinker-grinding plant was being planned under the name South Valley Cement Co. for a new industrial development zone near Aswan (Middle East Economic Digest, 1999a).

Another important industrial mineral sector in Egypt is that of the phosphate mining and fertilizer industry. A useful historical review of the industry is given in the Arab Oil & Gas Directory (2000). Phosphate rock is mined at two main locations in the country (table 2). The Government sold the Abu Zaabal Fertilizer & Chemicals Co. during the year to a consortium of private investors (Middle East Economic Digest, 1999e). The company mined phosphate rock and produced phosphate fertilizers. Société Financière et Industrielle d'Égypte was planning to build a new phosphoric acid and triple superphosphate plant in a new industrial zone in Suez; construction was to start in 2000. The company also was expanding its sulfuric acid capacity at its existing plants (Middle East Economic Digest, 1999d). Egypt Basic Industries Co., in which American company Kellogg Brown & Root was a major shareholder, was planning to build a 1,850-metric-ton-per-day ammonia plant in the new Suez Industrial Zone, about 20 kilometers south of Suez. The plant will use natural gas feedstock. Egyptian Fertilizer Co. was building an ammonia/urea plant in the same zone (Middle East Economic Digest, 1999b).

Egypt's important energy minerals sector was dominated by the production of natural gas, crude petroleum, and refined petroleum products. A detailed review of the sector is given in the Arab Oil and Gas Directory (2000). For the first time since the mid-1970's, Egypt's trade balance in energy minerals was in deficit in 1999. This was due to rising domestic consumption levels that necessitated increased imports in the face of generally declining output of crude petroleum and generally low crude oil prices during the year. In the case of natural gas (and related liquified or compressed products), Egypt was in the peculiar situation of having to import increased amounts of liquid petroleum gas (LPG) to meet high demand despite producing more natural gas during the year because the

infrastructure was not yet in place to handle all the natural gas produced. Further, this production was costly to the Government because of the agreement the Government had with the foreign gas producers that operated in Egypt to purchase their share of natural gas output (Middle East Economic Digest, 2000 a,b).

A number of natural gas discoveries were announced for concessions offshore the Nile delta and Mediterranean coasts, and production started from a couple of new fields in the same region. Plans were being made to build one or more LPG plants to process some of the natural gas; the LPG would be for the domestic and export markets. Several crude oil discoveries were also announced during the year, mostly in the Gulf of Suez, and production began from one of them towards yearend.

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TABLE 1
EGYPT: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Thousand metric tons unless otherwise specified)

Commodity		1995	1996	1997	1998	1999 e/
METALS						
Aluminum metal	metric tons	180,300	179,200	178,200	195,000 r/	193,319 3/
Copper, refined, secondary	do.	4,300	4,600	5,000 r/ e/	6,000 r/ e/	6,000
Iron and steel:						
Iron ore and concentrate		2,043	2,429	2,744	3,001	3,000
Metal:						
Pig iron		1,062	1,050 r/ e/	1,000 e/	1,334	700
Direct reduced iron		860	827 r/	1,190	1,610 r/	1,670 3/
Steel, crude		2,642	2,618	2,717	2,870 r/	2,619 3/
Ferroalloys: e/						
Ferromanganese		35	35	26 r/	18 r/	30
Ferrosilicon		44 3/	44	44	44	44
Manganese ore e/	metric tons	1,207 3/	15,000	30,000 r/	30,000 r/	30,000
Titanium, ilmenite		57	124	125 e/	125 e/	130
INDUSTRIAL MINERALS						
Asbestos	metric tons	427	1,836	2,000 r/ e/	2,000 e/	2,000
Barite e/	do.	500	--	--	--	--
Cement, hydraulic, all types		17,665	18,700 r/	19,700 r/	21,000 r/	22,000
Clays:						
Bentonite e/		50 r/	50 r/	50 e/	50 r/	50
Fire clay		420 e/	350 e/	331	227	300
Kaolin	metric tons	293,381	258,725	258,869	285,497	290,000
Feldspar, crude	do.	75,049	53,783	57,335	325,654	330,000
Fluorspar	do.	551	700	775	140	500
Gypsum and anhydrite, crude		2,032	2,000 e/	2,423	1,338	2,000
Lime e/		750	750	800	800	800
Nitrogen:						
Ammonia, N content		1,096	1,126	1,061	1,141 r/	1,407 3/
Urea, N content		420 r/	480 r/	445	482 r/	700 3/
Phosphate:						
Phosphate rock		765	808	1,067 r/	1,076 r/	1,018 3/
Phosphorus pentoxide content		207	222	310 r/	311 r/	298 3/
Sodium compounds:						
Salt		1,990	1,530	2,024	2,387	2,400
Soda ash e/		50	50	50	50	50
Sodium sulfate	metric tons	2,000 e/	2,000 e/	2,118	2,498	2,500
Stone, sand and gravel:						
Basalt	thousand cubic meters	600 e/	600 e/	883	241	300
Dolomite		1,000 e/	1,000 e/	1,324	3,444	3,500
Granite, dimension stone	cubic meters	13,000 e/	20,000 e/	24,958	35,817	40,000
Gravel	thousand cubic meters	9,000 r/ e/	10,500 e/	12,033	11,463	12,000
Limestone and similar	do.	18,000 e/	18,300	23,559	25,618	27,000
Marble and alabaster blocks	cubic meters	45,000 e/	80,000 e/	127,767	134,664	140,000
Sand:						
Industrial sand (glass sand)		740 e/	850 e/	505	574	600
Construction sand		22,000 e/	22,000 e/	21,250	19,420	22,000
Sandstone	thousand cubic meters	200 e/	200 e/	66	6	--
Sulfur: e/						
Elemental, byproduct e/	metric tons	10,000	8,000	4,453 3/	4,450	4,400
Sulfuric acid		591 3/	680 3/	680 r/ e/	680 r/ e/	680
Talc, soapstone, pyrophyllite	metric tons	38,608	41,227	43,627	39,720	40,000
Vermiculite	do.	483	447	447	12,376	12,000
MINERAL FUELS AND RELATED MATERIALS						
Coal e/		10	200	300	370 r/ 3/	400
Coke e/		1,860 r/ 3/	1,800 r/	1,800 r/	1,500 r/	1,000
Gas, natural:						
Gross production	million cubic meters	15,942	16,800 e/	17,000 e/	18,270 r/	19,766 3/
Dry	do.	12,536	13,183	13,349	16,430 r/	17,800
Petroleum:						
Crude, including condensate	thousand 42-gallon barrels	335,800	336,500	313,300 r/	304,400 r/	311,000 3/

See footnotes at end of table

TABLE 1--Continued
EGYPT: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Thousand metric tons unless otherwise specified)

Commodity	1995	1996	1997	1998	1999 e/	
MINERAL FUELS AND RELATED MATERIALS--Continued						
Petroleum--Continued:						
Refinery products:						
Liquified petroleum gas	thousand 42-gallon barrels	5,325	5,080	6,333	5,090	5,371 3/
Gasoline and naphtha	do.	38,450	40,185	44,065	43,465	43,699 3/
Kerosene and jet fuel	do.	15,770	17,255	16,606	15,788	15,472 3/
Distillate fuel oil	do.	43,550	42,298	43,790	45,230	45,857 3/
Residual fuel oil	do.	80,350	85,787	86,100	87,625	82,011 3/
Lubricants	do.	1,645	1,645	1,729	1,820	1,834 3/
Asphalt	do.	4,485	4,181	4,641	5,042	6,030 3/
Unspecified 4/	do.	4,545 r/	4,596 r/	2,400	2,350	1,987 3/
Total	do.	194,120	201,027	205,664	206,410	202,261 3/

e/ Estimated. r/ Revised. -- Zero.

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

2/ Table includes data available through February 15, 2001. In addition to those listed, Egypt produced a number of commodities for which even crude data were unavailable; these include a number of metals, such as lead produced by secondary recovery methods and manufactured mineral commodities, such as carbon black and glass.

3/ Reported figure.

4/ Amounts needed to complete reported refinery products totals shown.

TABLE 2
EGYPT: STRUCTURE OF THE MINERAL INDUSTRY IN 1999

(Capacity in thousand metric tons unless otherwise specified)

Commodity	Major operating companies and and major equity owners 1/	Location of main facilities	Annual capacity
METALS			
Aluminum, primary	Aluminium Co. of Egypt (Government, 80%; private, 20%)	Nag Hammadi	195.
Iron and steel:			
Crude	Alexandria National Iron and Steel Co. (Government, 52%; local and foreign private, 26%; employees, 22%)	El Dikheila (Alexandria)	2,600 (direct reduced iron), 2,860 (crude steel).
Do.	Al Ezz Steel Rebars Co. (private, 100%)	Sadat City	700 (crude steel).
Do.	Arab Co. for Special Steel (private, 100%)	do.	140 (crude steel).
Do.	Delta Steel Mill Co. (Government, 100%)	Kaliubieh	160 (crude steel).
Do.	Egyptian Copper Works Co. (Government, 100%)	Hagar el Haweteya	130 (crude steel).
Do.	Egyptian Iron and Steel Co. (HADISOLB) (Government, 100%)	Helwan	1,500 (crude iron), 1,300 (crude steel).
Do.	Suez Steel Co. (private, 100%)	Adabiya (Suez)	600 (crude steel).
Iron ore	Egyptian Iron and Steel Co.	El Bahariya Oasis	3,000 (crude ore).
Ferromanganese	Sinai Manganese Co.	Abu Zinema	40 e/ (alloy), 40 e/ (Mn ore).
Ferrosilicon	Egyptian Chemical Industries Co. (KIMA) (Government, 55.8%; private, 44.2%)	Kima (Aswan)	8.
Do.	The Egyptian Ferroalloy Co.	Edfu	56.
Titanium, ilmenite	El Nasr Phosphate Co. (Government, 100%)	Abu Ghalaga	125 concentrate.
INDUSTRIAL MINERALS			
Cement	Alexandria Portland Cement Co. (Blue Circle Cement, UK, 73.6%; others, 26.4%)	El Mex (Alexandria)	800 (clinker).
Do.	Ameriyah Cement Co. (Government 100%) 2/	Ameriyah	2,300 (clinker).
Do.	Assiut Cements Co. (Cemex, Mexico, 90%)	Assiut	3,500 (clinker).
Do.	Beni Suef Cement Co. (Lafarge, France, 38%; Titan Cement Co., Greece, 38%; Government, 18%; other, 6%)	Beni Suef	1,400 (clinker).
Do.	Egyptian Portland Cement Co. (Orascom Group, 53.7%; Holderbank Financière Glaris Ltd., Switzerland, 43.7%; others, 2.6%) 4/	70 kilometers east of Cairo	2,800 (clinker). 3/
Do.	Helwan Portland Cement Co. (Government, 73%; private, 27%)	Helwan	2,800 clinker.
Do.	do.	El Minya	250 (white cement).

See footnotes at end of table.

TABLE 2--Continued
EGYPT: STRUCTURE OF THE MINERAL INDUSTRY IN 1999

(Capacity in thousand metric tons unless otherwise specified)

Commodity	Major operating companies and and major equity owners 1/	Location of main facilities	Annual capacity	
INDUSTRIAL MINERALS--Continued				
Cement--Continued	National Cement Co. (Government, 100%)	Helwan	2,400 (clinker).	
Do.	Suez Cement Co. (Government, 77%; private, 23%)	Qattamia	1,200 (clinker).	
Do.	do.	Wadi Hagoul (Suez)	2,500 (clinker).	
Do.	Tourah Portland Cement Co. (Government, 67%; private, 33%) 5/	10 kilometers outside of Cairo	3,400 clinker.	
Fertilizers:				
Nitrogenous	Abu Qir Fertilizer & Chemical Industries Co. (private, 66.7%; Government, 33.3%)	Abu Qir (3 plants) (Alexandria)	792 (ammonium nitrate), 518 (ammonia), 460 (urea).	
Do.	Egyptian Chemical Industries Co. (KIMA) (Government, 55.8%; private, 44.2%)	Kima (Aswan)	400 (ammonium nitrate).	
Do.	Société El-Nasr d'Engrais et d'Industries Chimiques (SEMADCO) (Government, 100%)	Suez	250 (calcium nitrate), 100 (ammonium sulfate).	
	do.	Talkha	565 (urea), 380 (ammonium nitrate).	
Phosphatic	Abu Zaabal Fertilizers & Chemicals Co. (private, 90%)	Abu Zaabal	350 (SSP); 140 (TSP), 80 (phosphoric acid).	
Do.	Société Financière et Industrielle d'Egypte (Government, 100%)	Kafr el Zayat	375 (SSP).	
Do.	do.	Assiut	375 (SSP/NP).	
Phosphate rock	Egyptian Organization of Industrial and Mining Complexes (Government, 100%)	Abu Tartur	2,200 (phosphate rock).	
Do.	Abu Zaabal Fertilizers & Chemicals Co. (private, 90%)	West Sabaeya	500 (phosphate rock).	
MINERAL FUELS				
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, 50%; Apache Oil Co., 40%; Samsung, 10%)	Khalda	24.
Petroleum, crude:	million 42-gallon barrels	Belayim Petroleum Co. (EGPC, 50%; International Egyptian Oil Co., 50%)	Belayim, Suez Gulf	65.
Do.	do.	Gulf of Suez Oil Co. (EGPC, 50%; BP Amoco, 50%)	October, Suez Gulf	45.
Do.	do.	do.	El Morgan, Suez Gulf	27.
Do.	do.	Suez Oil Co. (EGPC, 50%, Deminex GmbH, 25%; Repsol, 25%)	Ras Budran, Suez Gulf	15.
Petroleum, refined	do.	Alexandria Petroleum Co. (Government, 100%)	Alexandria	42.
Do.	do.	Ameriya Petroleum Refining Co. (Government, 100%)	Ameriyah	27.
Do.	do.	Assiut Petroleum Refining Co. (Government, 100%)	Assiut	18.
Do.	do.	Cairo Petroleum Refining Co. (Government, 100%)	Mostorod	42.
Do.	do.	do.	Tanta	15.
Do.	do.	El-Nasr petroleum Refining Co. (Government, 100%)	Suez	36.
Do.	do.	Suez Petroleum Refining Co. (Government, 100%)	do.	21.

e/ Estimated.

1/ Unless otherwise stated, all private investors are believed to be Egyptian nationals and/or companies.

"Government" implies State ownership, commonly through State holding companies.

2/ CIMPOR of Portugal purchased 95% of the equity in Ameriyah Cement in 2000.

3/ In 1999, company announced plans for two more kilns, each of 1.4 million metric tons per year capacity, to come on-stream in 2000 and 2001, respectively.

4/ In July 2000, Holderbank increased its stake to the 43.7% shown by purchasing the 8% stake held by Suez Cement Co.

5/ Suez Cement purchased 65% of the equity in Tourah Cement from the Government in 2000.