



2019 Minerals Yearbook

EGYPT [ADVANCE RELEASE]

THE MINERAL INDUSTRY OF EGYPT

By Mowafa Taib

In 2019, Egypt exported such mineral commodities as cement, crude petroleum, feldspar, ferroalloys, gold, iron and steel, nitrogen and phosphate-based products, phosphate rock, primary and secondary aluminum, refined petroleum products, quartz, secondary copper, and salt. The country was also an importer of minerals; it imported such mineral commodities as alumina, coal, copper, crude petroleum, iron ore, iron and steel, natural gas, and refined petroleum products. Egypt was the world's 6th-ranked producer of direct-reduced iron (DRI) and phosphate rock, the 7th-ranked producer of ammonia, the 12th-ranked producer of cement, and the 13th-ranked producer of natural gas (accounting for 1.6% of world natural gas production) (BP p.l.c., 2020, p. 34; United Nations Statistics Division, 2020, p. 130–131; World Steel Association, 2020, p. 29; Apodaca, 2021; Hatfield, 2021; Jasinski, 2021).

Minerals in the National Economy

In 2019, Egypt's real gross domestic product (GDP) increased by 5.6% compared with an increase of 5.3% in 2018. The country's nominal GDP amounted to \$302.33 billion¹ in 2019. In fiscal year 2019, which began on July 1, 2018, and ended on June 30, 2019, the contribution of the mining sector, which included hydrocarbons and nonfuel minerals, to the GDP increased to 10.2% from 9.8% in fiscal year 2018. The value added by the natural gas industry accounted for 5.2% of the GDP; crude petroleum, 3.8% of the GDP; and nonfuel minerals, 1.3% of the GDP. The output value of Egypt's manufacturing sector, which included aluminum, cement, fertilizers, iron and steel, and refined petroleum production, accounted for 16.2% of the GDP; that of the construction sector accounted for 6.2% of the GDP. In fiscal year 2019, the output value of the private and public mining companies increased by 9.8%; that of the construction and building materials sector increased by 8.8%, and that of the manufacturing sector increased by 2.8% (Central Agency for Public Mobilization and Statistics, 2020, p. 13; Central Bank of Egypt, 2020, p. A, 21; International Monetary Fund, 2021).

The net flows of foreign direct investment (FDI), which accounted for 2.7% of the GDP in 2019 compared with 3.1% of the GDP in 2018, increased to \$8.2 billion in 2019 from \$7.2 billion in 2018. The FDI flows to Egypt went mainly to the petroleum sector, which received 61.9% of the total; services received 20.1%; manufacturing, 9.9%; construction, 4.2%; and agriculture, 0.3%; the remaining 3.6% of the FDI flows were marked as undistributed (Central Bank of Egypt, 2020, p. 60, 65, 66).

Government Policies and Programs

The Ministry of Petroleum and Mineral Resources (MOPMR) was responsible for managing the country's mining and

hydrocarbon sectors and for outlining the Government's strategic objectives for the sustainable development of the country's hydrocarbons and mining resources. These objectives included meeting the domestic demand for mineral commodities and petroleum products, optimizing the value-added of natural resources, and transforming Egypt into a regional hub for natural gas and petroleum trade. In 2019, the MOPMR was preparing the final steps for the launching of two international bidding rounds for mineral exploration in the country. One bid was for gold and associated minerals exploration in the "golden triangle" area, which is located along the Red Sea coast in eastern Egypt. The other bid was for the exploration of other metals, such as iron ore, lead, and zinc, and industrial minerals, such as feldspar, kaolin, phosphate rock, potash, and white sand (Ministry of Petroleum and Minerals Resources, 2020a, c, d, e, f).

In 2019, the Egyptian House of Representatives approved law No. 145 of 2019, which amended some of the provisions of the Mineral Resources law No. 198 of 2014. Law No. 145 no longer requires the establishment of production-sharing agreements with the Government, as it abolished the 50–50 ownership requirement for joint-venture projects with the Government. The law, which applies to all active exploration and mining agreements regardless of their original contractual dates, gives the Egyptian Mineral Resources Authority (EMRA) the power to negotiate and approve mining permits and to determine royalty rates and other exploration and land rental fees. The law sets new royalty payments to the Government of between 5% and 20% on mineral production (Daily News Egypt, 2019; Ministry of Petroleum and Mineral Resources, 2020e, f; Thomson Reuters, 2020).

There are five main crude petroleum and natural gas laws that govern the exploration, development, and distribution of hydrocarbons in Egypt. These include the following: (1) the Law for Gas Market Activities Regulations No. 196; (2) the Law for Gas Market Activities Regulations No. 196 of August 2017; (3) law No. 236 of 2001 concerning the Egyptian National Gas Holding Company; (4) law No. 217 of 1980 concerning natural gas; and (5) law No. 20 of 1976 concerning the Egyptian General Petroleum Corporation. The Gas Regulatory Authority was established by law No.196 of 2017 as an independent agency to regulate the natural gas market in Egypt and is responsible for granting licenses and assessing tariffs on downstream natural gas activities, including supply and transportation to end users (Gas Regulatory Authority, 2017, p. 7, 11; 2018; Abdel Hakim, 2019).

Law No. 72 of 2017 repealed the Investment Guarantees and Incentives Law No. 8 of 1997 but keeps the benefits and guarantees to foreign investors under the old law. Investment Law No. 8 of 1997 provides the legal framework for several mining companies that were established in the country in the early 2000s. Law No. 198 of 2015 protects investments in the country of both foreign and domestic companies against nationalization and provides incentives for investing in mining

¹Where necessary, values have been converted from Egyptian pounds (LE) to U.S. dollars (US\$) at the annual average exchange rate of 16.71LE=US\$1.00 for 2019.

and in the manufacturing of fertilizers and petrochemicals in the country's free trade zones (Ministry of Petroleum and Mineral Resources, 2020b).

Production

Notable increases in mineral commodity production in 2019 compared with that of 2018 included that of refined lubricants, which increased by an estimated 14%; limestone, by an estimated 13%; natural gas (dry basis) and phosphoric acid, by an estimated 11% each; and caustic soda, by an estimated 10%. Notable decreases in mineral production included pig iron, which decreased by 65%; DRI, by 23%; hot-rolled steel, by 12%; and manganese (gross weight) and wire rod, by 10% each. Data on mineral production are in table 1.

Structure of the Mineral Industry

The structure of the mineral industry of Egypt included private, public, and state-owned companies. Some international companies formed joint ventures with local public and state-owned companies to explore for and to develop mineral resources. The vast majority of these companies were exploring for crude petroleum, natural gas, and gold. The MOPMR managed the country's mining and hydrocarbon sectors; it had five independently managed entities—Egyptian General Petroleum Corp. (EGPC), Egyptian Natural Gas Holding Co. (EGAS), Egyptian Petrochemical Holding Co., EMRA, and Ganoub El Wadi Petroleum Holding Co. (Ganope) (U.S. Energy Information Administration, 2018, p. 2–3; Ministry of Petroleum and Mineral Resources, 2020a).

The Ministry of Defense of Egypt owned and operated several companies that produced mineral commodities for civilian and military use; they included El-Arish Cement Co., El Nasr Mining Co., El Nasr Company for Intermediate Chemicals, Helwan Company for Nonferrous Industries, and Helwan Iron Foundries (table 2; Federation of American Scientists, 2018; Thomson Reuters, 2018b).

Mineral Trade

Egypt's total exports increased in value to \$30.6 billion in 2019 from \$29.5 billion in 2018, which accounted for 10% of the GDP. Petroleum products exports were valued at \$4.6 billion; crude petroleum exports, \$1.9 billion, and natural gas exports, \$1.4 billion. Gold exports increased in value to \$2.0 billion in 2019 from \$1.4 billion in 2018; the value of nitrogen fertilizers exports decreased to \$1.15 billion in 2019 from \$1.22 billion in 2018 (United Nations Statistics Division, 2020, p. 130).

The value of Egypt's exports to the United States increased to about \$3.2 billion in 2019 from \$2.5 billion in 2018. The main mineral-related exports were fuel oil (valued at \$837 million); crude petroleum (\$304 million); iron and steel mill products (\$59 million); fertilizers (\$58 million); bauxite and aluminum and petroleum products (others) (\$44 million each); stone, sand, and cement (\$23 million); wallboard (\$17 million); advanced iron and steel products (\$9 million); and other precious metals (\$2 million) (U.S. Census Bureau, 2020b).

The total value of Egypt's total imports decreased to \$78.7 billion in 2019 from \$82.4 billion in 2018. The value of the country's crude petroleum imports decreased to \$2.9 billion from \$3.6 billion in 2018; petroleum products imports decreased to \$6.0 billion from \$7.1 billion; and imports of natural gas and other petroleum gases decreased to \$1.1 billion from \$2.4 billion in 2018. In terms of tonnage, Egypt's steel products exports decreased to 1.2 million metric tons (Mt) in 2019 from 1.5 Mt in 2018 and its imports of semifinished steel products (semis) and finished steel products in 2019 increased to 592,000 metric tons (t) from 421,000 t in 2018 (United Nations Statistics Division, 2020, p.131; World Steel Association, 2020, p. 10, 13, 15).

The value of Egypt's imports from the United States increased to \$5.5 billion in 2019 from about \$5.1 billion in 2018. The major mineral and mineral-related commodity imports were coal and fuels (other) (valued at \$265 million), natural gas liquids (\$224 million), steelmaking materials (\$110 million), other petroleum products (\$102 million), metallurgical coal (\$67 million), natural gas and iron and steel products (\$13 million each), fuel oil (\$12 million), and fertilizers (\$10 million) (U.S. Census Bureau, 2020a).

Commodity Review

Metals

Aluminum.—Egyptian Aluminium Co. (Egyptalum), which was a subsidiary of the Holding Company for Metallurgical Industries (HCMI), was the country's sole producer of primary aluminum; it produced an estimated 300,000 t/yr of aluminum in 2019 and 2018. The company had the capacity to produce 320,000 metric tons per year (t/yr) of aluminum from 12 plotlines, including billets (95,000 t/yr); rolled products (85,000 t/yr); ingots, slabs, and tee bars (35,000 t/yr); cold- and hot-rolled sheets (75,000 t/yr); and foundry alloys and extrusion profiles (15,000 t/yr each). The company also had the capacity to produce 140,000 t/yr of calcined coke and 172,000 t/yr of prebaked anode blocks. In 2019, Egyptalum was finalizing its plan to expand its production capacity by building the seventh and eighth potlines that will add 500,000 t/yr after the second phase of the expansion project. The first phase, which would include the building a seventh potline, was expected to begin in 2020 and to be completed by 2022 (tables 1, 2; Egyptian Aluminium Co., 2020a, b; Stohy, 2020).

Arab Aluminum Co. S.A.E. produced a wide range of secondary aluminum products, including, angles, bars, and tubes; it had the capacity to produce 15,000 t/yr of aluminum products. Other secondary aluminum producers in Egypt included Canex Aluminum, which was a Canadian-Saudi Arabian joint venture; Egyptian Aluminium Products Co. (Alumisr), which had two plants at El-Obour city and Helwan; Egyptian Copper Works Co., which produced aluminum sheets and wire; Egyptian International Co. for Aluminum Profiles S.A.E.; and Helwan Company for Nonferrous Industries (table 2; Arab Aluminum Co. S.A.E., 2020).

Gold.—Egypt's gold production increased to 14,944 kilograms (kg) in 2019 from 14,680 kg in 2018. The country's entire gold production came from the Sukari Mine, which was owned by Sukari Gold Mine Co. and operated by

Centamin plc of the United Kingdom. The mine had both open pit and underground operations. In 2019, Centamin mined 14.4 Mt of ore at the open pit and 1.1 Mt at the underground section of the mine. The company processed about 12.9 Mt of ore grading 1.28 grams per metric ton (g/t) gold with 88.1% gold recovery. In 2019, the Sukari Mine held 217.7 t of gold reserves (reported as 7.0 million troy ounces) at an average grade of 1.1 g/t gold, and the life of the mine was estimated to be more than 15 years. The company planned to mine mainly sulfide ore from the open pit operation during the next 3 years and expected to produce between 15,860 and 16,800 kilograms per year for the remaining mine life (table 1; Egypt Today, 2018a; Centamin plc, 2020a; 2020b, p. 34, 42).

Iron and Steel.—The country's raw steel output decreased by 0.5 Mt to 7.3 Mt in 2019 from 7.8 Mt in 2018 and hot-rolled products output decreased by 1.2 Mt to 8.4 Mt from about 9.6 Mt. Exports of semis and finished steel products decreased to 1.2 Mt in 2019 from 1.5 Mt in 2018, whereas imports of semifinished and finished steel products increased to 592,000 t in 2019 from 421,000 t in 2018 (table 1; World Steel Association, 2020, p. 2, 8, 10, 13).

Ezz Steel Group was Egypt's leading steel producer; it had the capacity to produce 7.0 Mt/yr of steel products, including long (4.7 Mt/yr) and flat (2.3 Mt/yr) steel products at its four plants located in Alexandria, Sadat City, Suez, and 10th of Ramadan City. Ezz Steel employed more than 8,000 people. Beshay Steel Group had the capacity to produce 4.0 Mt/yr of steel at its three plants in Sadat City. The company produced billets, steel-reinforcing bar (rebar), wire rods, and light steel sections for domestic and international markets and employed 3,500 workers. Solb Misr operated three steel rolling mills that had a combined capacity of 2.2 Mt/yr, and two steel melting shops that had the capacity to produce 2.1 Mt/yr of steel products (table 2; Beshay Steel Group, 2020; Ezz Steel Co., 2021; Suez Steel Co., 2021).

The Egyptian Steel Group comprised two steel companies— IIC for Steel Plant Management Co. (IIC) and National Port Said Steel Co. (NPSS). IIC operated a plant at Beni Suef (located about 145 kilometers south of Cairo) that had the capacity to produce 350,000 t/yr of rebar and 300,000 t/yr of raw steel. The company also operated a steel plant in Alexandria that has the capacity to produce 300,000 t/yr of rebar and wire rods. NPSS operated a 350,000-t/yr-capacity rebar plant at Port Said and a plant at Ain Al Sokhna with the capacity to produce 830,000 t/yr of raw steel and 500,000 t/yr of rebar. Hadisob, which was one of the companies affiliated with the HCMI, mainly produced finished steel products, iron ore, and raw steel at its plant in Helwan, south of Cairo. The company had been producing at about 30% of its capacity in recent years owing to old machinery and a lack of investment to update its facilities (table 2; Egyptian Iron and Steel Co., 2020; Egyptian Steel Group, 2020a, b; Holding Company for Metallurgical Industries, 2020).

Iron Ore.—Egypt's iron ore production was 500,000 t each in 2018 and 2019, which was a sharp decrease from historical production of 1.5 Mt in 2015. The decrease in iron ore production was attributed to continued financial difficulties at the Egyptian Iron and Steel Co. (Hadisob) and to the exhaustion

of iron ore reserves at the El-Gedida Mine in El Bahariya Oasis. DRI output, which was made from imported iron ore mainly from Brazil, decreased by 23% to 4.4 Mt in 2019 from 5.8 Mt in 2018. The decrease was attributed to lower demand for steel in 2019. DRI production was carried out by Al Ezz El-Dekheila Steel Co. which had the capacity to produce 3 million metric tons per year (Mt/yr) at its three plants at El-Dekheila in Alexandria; Ezz Rolling Mills S.A., which had the capacity to produce 2 Mt/yr at its plant at 10th of Ramadan City; Egyptian Sponge Iron and Steel Co. (ESISCO), which had a 2.0-Mt/yr-capacity plant at Sadat City; and Suez Steel Co. (Solb Misr), which had a 2.1-Mt/yr-capacity plant at Adabia in Suez (table 2; Midrex Technologies, Inc., 2020, p. 11–13; World Steel Association, 2020, p. 29).

Industrial Minerals

Cement.—In 2019, Egypt's cement output decreased to 48.7 Mt from 52.0 Mt in 2018. The decrease was attributed to surplus production in previous year coupled with weak domestic demand and exports. Cement consumption in Egypt had been decreasing since it peaked at 56.5 Mt in 2016, totaling to 48.7 Mt in 2019. The surplus production of cement in Egypt coupled with weak export potential triggered some companies to suspend production at some lines and even an entire plant, as was the case of El Nada Cement Co. and Suez Cement, which halted production at the Torah cement plant in June (table 1; Global Cement News, 2018; Hafez, 2019; Perilli, 2019; Cement Industry Division, 2021).

The Egyptian Cement Group was building a new cement plant in Suhag Governorate. The plant, which was being constructed by Sinoma International Engineering Co. Ltd. of China, would have the capacity to produce 2 Mt/yr of cement and was expected to be commissioned in 2021 (Perilli, 2020).

Nitrogen.—Egypt's production of ammonia was estimated to have increased to 4.2 Mt in 2019 from 4.1 Mt in 2018, whereas urea production was unchanged from the 3.0 Mt produced in 2018. Several private and public companies produced nitrogen fertilizers—ammonium nitrate, nitric acid, and urea—from ammonia. These companies included Abu Qir Fertilizer & Chemical Industries Co., Alexandria Fertilizer Co. (Alexfert), Delta Fertilizers and Chemicals Industries (ASMEDA), Egypt Basic Industries Corp. (EBIC); Egyptian Chemical Industries (KIMA), Egyptian Fertilizers Co. (EFC), El Nasr Fertilizers and Chemicals Co. (SEMADCO), Evergrow for Specialty Fertilizers Co.; Helwan Fertilizers Co., and Misr Fertilizer Production Co. S.A.E. (MOPCO) (table 1, 2).

In August, El-Nasr Company for Intermediate Chemicals (a subsidiary of the National Services Products Organization of the Ministry of Defense) commissioned the Ain Al Sokhna Phosphatic Fertilizer Complex in Ain Al Sokhna, which is located at the southern end of the Suez Canal. The complex had the capacity to produce 440,000 t/yr of ammonia, 380,000 t/yr of urea, and 300,000 t/yr of calcium ammonium nitrate (Hassan Allam Holding Co., 2018; Thyssenkrupp AG, 2019).

In May, KIMA, which was one of the companies affiliated with the Holding Company for Chemical Industries (HCCI), completed the construction of a new nitrogen fertilizer plant at Aswan. The plant, KIMA 2, was built next to KIMA's existing

plant and had the capacity to produce 396,000 t/yr of ammonia, 520,000 t/yr of urea, and 220,000 t/yr of ammonium nitrate. The project was financed by a group of unnamed domestic and regional banks (Egypt Today, 2018b; 2019; Holding Company for Chemical Industries, 2020).

Phosphate Rock.—Egypt's phosphate rock output was estimated to be 5.0 Mt in 2019 and 2018. El Nasr Mining Co. was the leading producer of phosphate rock in Egypt; it produced 3.5 Mt of phosphate rock from the East El Sebaáya Mine, the West El Sebaáya Mine, and the Red Sea Mine at El Quseir. El Nasr Mining had the capacity to produce 5 Mt/yr of phosphate rock. Phosphate Misr Co. S.A.E (PMC) was the second-ranked producer of phosphate rock in the country; it produced about 2.5 Mt of phosphate rock. The company operated the Abu Tartur mines, the New Valley mines at El Sebaaya, and the Red Sea Mines (tables 1, 2; El Nasr Mining Co., 2020; Phosphate Misr Co. S.A.E, 2020).

Several private companies produced phosphate fertilizers from phosphate rock in Egypt. These companies included Abu Zaabal Fertilizers and Chemicals Co., Egyptian Financial and Industrial Co., El-Nasr Company for Intermediate Chemicals, Evergrow for Specialty Fertilizers Co., Polyserve for Fertilizers and Chemicals, and Suez Company for Fertilizers Production. El Wady for Phosphate Industries & Fertilizers Co. (WAPHCO), which was a joint stock company, was developing a phosphate fertilizer manufacturing complex at the Abu Tartur phosphate rock mine in the Al Wadi Al Gadid [The New Valley] Governorate. In the first phase, which was expected to be completed in 2021, the project was expected to include a phosphate ore treatment unit with the capacity to handle 2.4 Mt/yr of phosphate rock, a 600,000-t/yr-capacity phosphoric acid production unit, and a sulfuric acid production unit. The second phase of the project was expected to include an 800,000-t/yr-capacity diammonium phosphate (DAP) plant and a 600,000-t/yr-capacity TSP plant. The \$900 million project was funded by PMC (25%); Ahli Holding Co. (20%); Abu Qir Fertilizer & Chemical Industries Co., National Investment Bank, Orient Gas Co., Petrojet, and Inpi Co. (10% each), and EMRA (5%). The MPMR was finalizing awarding a front-end engineering design for the Abu Tartur phosphate project to Flour Corp. of the United States. The project was expected to be completed at the end of 2023 (table 2; Petroleum Future, 2017; Menachery, 2018; El Wady for Phosphate Industries & Fertilizers Co., 2020).

El-Nasr Company for Intermediate Chemicals had been producing compound fertilizers, phosphate fertilizer, phosphoric acid, and other chemicals at the Giza Industrial zone. In August, the company commissioned its new phosphatic fertilizer complex in Ain Al Sokhna at the southern end of the Suez Canal. The complex included two sulfuric acid plants with the capacity to produce 1.2 Mt/yr and two plants that had the capacity to produce 900,000 t/yr of merchant and purified phosphate, including 500,000 t/yr of ammonium phosphate and 500,000 t/yr of triple superphosphate (State Information Service, 2019; El-Nasr Company for Intermediate Chemicals, 2020).

Mineral Fuels

Natural Gas.—In 2019, Egypt's proven natural gas reserves were 2.1 trillion cubic meters and accounted for 1.1% of the

world's total proven natural gas reserves. Dry (marketable) natural gas production increased by 10.9% to 64.9 billion cubic meters in 2019 from 58.6 billion cubic meters in 2018. The increase in natural gas production was attributed mainly to the increase in production at the Zohr Gasfield and to increased production from the West Nile Delta gasfields. About 58% of Egypt's natural gas production came from the Mediterranean Sea offshore fields, 20% from the Western Desert, 20% from the Nile Delta region, and 2% from the Gulf of Suez and Sinai Peninsula. Some 20 international and domestic companies produced natural gas in Egypt in 2019; they included Apache Oil Co. of the United States, BP p.l.c., of the United Kingdom, Dana Gas PJSC of the United Arab Emirates, DEA Deutsche Erdoel AG of Germany, Eni Group of Italy, EGPC, and Royal Dutch Shell of the Netherlands and United Kingdom. The number of natural gas discoveries in Egypt decreased to 15 in 2019 from 18 in 2018. Petroleum and natural gas discoveries were reported offshore the Mediterranean Sea, the Gulf of Suez, the Nile Delta, the Western Desert, and the Sinai Peninsula. The country's natural gas consumption decreased by 1.5% to 58.9 billion cubic meters from 59.6 billion cubic meters in 2018 (table 2; BP p.l.c., 2020, p. 32, 34; Eni Group, 2020, p. 7, 31; Hellenic Shipping News World Wide, 2020; Organization of Arab Petroleum Exporting Countries, 2021, p. 22).

Petroleum.—The output of crude petroleum (and condensate) slightly decreased in 2019 to 231 million barrels (Mbbbl) from 235 Mbbbl in 2018. Egypt accounted for 0.7% of the world's total output of crude petroleum. The country held 3.1 billion barrels of proved crude petroleum reserves. Consumption of crude petroleum decreased to 271 Mbbbl in 2019 from 276 Mbbbl in 2018 and accounted for 0.8% of the world's total consumption. Fifty-six percent of Egypt's crude petroleum production came from the Western Desert, 23% from the Gulf of Suez, 12% from the Eastern Desert, and 9% from the Sinai Peninsula. Petroleum production in Egypt was carried out by 43 domestic and international companies, chief among which were Apache, Belayim Petroleum Co. SAE (Petrobel), Dragon Oil Co. of the United Arab Emirates, EGPC, Eni, Gulf of Suez Petroleum Co. SAE (Gupco), Khalda Petroleum Co. SAE, and Shell. Crude petroleum discoveries decreased to 40 in 2019 from 51 in 2018 (table 2; BP p.l.c., 2020, p. 14, 16, 21; Organization of Arab Petroleum Exporting Countries, 2021, p. 20).

Egypt's combined petroleum refinery throughput at its eight refineries was 562,000 barrels per day (bbl/d) in 2019, which was significantly less than the installed refining capacity of 795,000 bbl/d. In 2019, the MOPMR was implementing its plan to expand Egypt's petroleum refining capacity by an additional 3 Mt/yr by building new refineries and expanding capacities at existing refineries. The plan aimed to meet the increased demand for refined petroleum products in the local market and to make the country a regional hub for natural gas and petroleum. The expansion in refining capacity was one of the components of the country's petroleum sector modernization program, which began in 2016 and was expected to continue through 2023 as part of Egypt's Vision 2030. Egyptian Refining Co., which was a joint venture of Arab Refinery Co. (66.6%) and EGPC (33.4%), completed building a new refinery at Mostorod near Cairo after substantial delay. The new refinery had the capacity

to produce 4.7 Mt/yr of refined petroleum products. The refinery was commissioned in the fourth quarter of 2019 at a cost of \$4.1 billion and was expected to decrease Egypt's imports of distilled gas fuel by 50%, and of gasoline, by 40%. In 2019, Assiut Oil Refining Co. carried out a \$450 million project to increase high-octane gasoline production by 800,000 t/yr at the Assiut refinery. The project was expected to be completed in April 2020 and would add 23,000 t/yr of LPG and 34,000 t/yr of hydrogen-rich gases (for a total of 2.8 Mt/yr of gasoline, 102,000 t/yr of LPG, 400,000 t/yr of naphtha, 330,000 t/yr of petroleum coke, and 60,000 t/yr of sulfur Thomson Reuters, 2018a; U.S. Energy Information Administration, 2018, p. 5; BP p.l.c., 2020, p. 28–29; Brelsford, 2020; Egyptian Refining Co., 2021; Assiut National Oil Processing Co., 2022.).

In 2019, the Government established a new company under the name Red Sea National Co. for Refining and Petrochemicals to develop a 2.5 Mt/yr hydrocracking and gasoline production complex in Suez. The construction of the complex was scheduled to be completed in January 2022 (Brelsford, 2020).

Outlook

Egypt's economic growth was expected to remain positive in 2020 and is projected to increase by 2.8% in spite of the negative effects of the coronavirus disease 2019 (COVID–19) pandemic on the economy, according to the International Monetary Fund. The adoption of the new mining code (law No. 145 of 2019), which does not limit mining companies' ownership to 50% in new mining projects, is expected to encourage private domestic and foreign mining companies to take a bigger role in exploring and developing the country's mineral resources of gold and associated minerals, industrial minerals, lead, and zinc. Production of mineral commodities, such as aluminum, gold, gypsum, iron and steel, natural gas, nitrogen and phosphate fertilizers, phosphate rock, and refined petroleum products is likely to increase in the next 5 years with the completion of expansion projects at existing plants and the commissioning of new projects. Exports of cement and iron and steel are expected to increase in the short term owing to high production capacity and weak domestic demand.

References Cited

- Abdel Hakim, D., 2019, Oil & gas industry in Egypt: HG.org Legal Resources. (Accessed April 24, 2020, at <https://www.hg.org/legal-articles/oil-and-gas-industry-in-egypt-53091>.)
- Apodaca, L.E., 2021, Nitrogen (fixed)—Ammonia: U.S. Geological Survey Mineral Commodity Summaries 2021, p. 116–117.
- Arab Aluminum Co. S.A.E., 2021, Company profile: Cairo, Egypt, Arab Aluminum Co. S.A.E., 2016. (Accessed January 25, 2021, at <http://www.arabaluminum.com/about.php>.)
- Assiut National Oil Processing Co., 2022, Products: Assiut, Egypt, Assiut National Oil Processing Co. (Accessed July 14, 2023, at <https://anopec-eg.com/products/>.)
- BP p.l.c., 2020, BP statistical review of world energy 2020: London, United Kingdom, BP p.l.c., June, 65 p. (Accessed January 25, 2021, at <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2020-full-report.pdf>.)
- Beshay Steel Group, 2020, Subsidiaries and capacities: Cairo, Egypt, Beshay Steel Group. (Accessed May 3, 2021, at <https://www.beshaysteel.com/subsidiaries-and-capacities/>.)
- Brelsford, Robert, 2020, Egypt advances major downstream modernization program: Oil & Gas Journal, August 6. (Accessed January 28, 2021, at <https://www.ogj.com/refining-processing/article/14173826/egypt-advances-major-downstream-modernization-program>.)
- Cement Industry Division, 2021, Key figures & facts of cement industry in Egypt: Cairo, Egypt, Cement Industry Division. (Accessed April 28, 2021, at <https://cementdivision.com/cement-industry-in-egypt/facts-and-figures>.)
- Centamin plc, 2020a, Assets—Sukari gold mine: St. Helier, Jersey [United Kingdom], Centamin plc. (Accessed January 27, 2021, at <https://www.centamin.com/assets/sukari-gold-mine/>.)
- Centamin plc, 2020b, Annual report 2019: St. Helier, Jersey [United Kingdom], Centamin plc, January 14, 233.p. (Accessed January 17, 2020, at <https://www.centamin.com/media/1809/cey-2019-annual-report-270520.pdf>.)
- Central Agency for Public Mobilization and Statistics, 2020, Egypt in figures—Industry and petroleum: Cairo, Egypt, Central Agency for Public Mobilization and Statistics. (Accessed January 13, 2021, http://www.capmas.gov.eg/Pages/StaticPages.aspx?page_id=5035.)
- Central Bank of Egypt, 2020, Annual report 2018/2019: Cairo, Egypt, Central Bank of Egypt, 133 p. (Accessed January 26, 2021, at https://www.cbe.org.eg/_layouts/download.aspx?SourceUrl=%2Fen%2FEconomicResearch%2FPublications%2FAnnualReportDL%2FAnnual%20Report%202018-2019.pdf.)
- Daily News Egypt, 2019, Petroleum Ministry to present Mineral Wealth Law's executive regulations to cabinet for ratification in November: Daily News [Cairo] Egypt, November 2, 2019. (Accessed January 21, 2020, at <https://dailynewsegypt.com/2019/11/02/petroleum-ministry-to-present-mineral-wealth-laws-executive-regulations-to-cabinet-for-ratification-in-november/>.)
- Egyptian Aluminium Co., 2020a, Anode plant: Naga Hammadi, Egypt, Egyptian Aluminium Co. (Accessed March 12, 2019, at <http://www.egyptalum.com.eg/staticPages.aspx?LId=6&PID=18>.)
- Egyptian Aluminium Co., 2020b, Catalog: Naga Hammadi, Egypt, Egyptian Aluminium Co. (Accessed March 12, 2019, at <http://www.egyptalum.com.eg/catalog.aspx?LId=9>.)
- Egyptian Iron and Steel Co., 2020, About the company: Cairo, Egypt, Egyptian Iron and Steel Co. (Accessed February 8, 2021, at http://hadisolb.com/hadisolb_en.html.)
- Egyptian Refining Co., 2021, Project overview: Cairo, Egypt, Egyptian Refining Co., 2021. (Accessed March 29, 2022, at <https://www.ercegypt.com/ourproject>.)
- Egyptian Steel Group, 2020a, Companies & plants—IIC: Cairo, Egypt, Egyptian Steel Group. (Accessed February 8, 2021, at <http://www.egyptian-steel.com/Companies-and-Factories/IIC-For-Steel-Plants-Management-Company.aspx>.)
- Egyptian Steel Group, 2020b, Companies & plants—NPSS: Cairo, Egypt, Egyptian Steel Group. (Accessed February 8, 2021, at [http://www.egyptian-steel.com/Companies-and-Factories/National-Port-Said-Steel-Company-\(NPSS\).html](http://www.egyptian-steel.com/Companies-and-Factories/National-Port-Said-Steel-Company-(NPSS).html).)
- Egypt Today, 2018a, Australian amb—Egypt has tremendous possibilities in mining: Cairo, Egypt, Egypt Today, February. (Accessed April 28, 2021, at <http://www.egypttoday.com/Article/3/42697/Australian-amb-Egypt-has-tremendous-possibilities-in-mining>.)
- Egypt Today, 2018b, 85% of KIMA 2 project achieved—Chemical Holding: Cairo Egypt, Egypt Today, April 11. (Accessed March 20, 2019, at <https://www.egypttoday.com/Article/3/47469/85-of-KIMA-2-project-achieved-Chemical-Holding#:~:text=CAIRO%20E2%80%93%2011%20April%202018%3A%20Around,Holding%20Company%20Waleed%20el%2DRashidy>.)
- Egypt Today, 2019, KIMA 2 plant to start production in May: Cairo Egypt, Egypt Today, February 26. (Accessed February 5, 2021, at <https://www.egypttoday.com/Article/3/65289/KIMA-2-plant-to-start-production-in-May>.)
- El-Nasr Company for Intermediate Chemicals, 2020, Fertilizers: Giza, Egypt, El-Nasr Company for Intermediate Chemicals. (Accessed January 25, 2021, at <http://www.nasrchemicals.com/EnFertilizer.html>.)
- El Nasr Mining Co., 2020, [Products]: Aswan, Egypt, El Nasr Mining Co. (Accessed January 25, 2021, http://www.elnasrmining.com/default_ar.aspx.)
- El Wady for Phosphate Industries & Fertilizers Co., 2020, The project: Cairo, Egypt, El Wady for Phosphate Industries & Fertilizers Co. (Accessed February 4, 2021, at <http://www.waphco.com/project.html>.)
- Eni Group, 2020, Integrated annual report 2019: Rome, Italy, Eni Group, 299 p. (Accessed February 4, 2021, at <https://www.eni.com/assets/documents/eng/reports/2019/Annual-Report-2019.pdf>.)
- Ezz Steel Co., 2021, Plants: Cairo, Egypt, Ezz Steel Co. (Accessed January 27, 2021, at <https://www.ezzsteel.com/ezz-steel-plants>.)

- Federation of American Scientists, 2018, Military factories: Federation of American Scientists, 15 p. (Accessed March 18, 2019, at <https://fas.org/nuke/guide/egypt/facility/mark0033.htm>.)
- Gas Regulatory Authority, 2017, Law for Gas market activities regulation— Issued with No. 196 of year 2017: Cairo, Egypt, Gas Regulatory Authority, August 1, 30 p. (Accessed January 21, 2020, at https://www.gasreg.org/eg/wp-content/uploads/gasreg_law_en.pdf.) [Uncertified English translation by the Gas Regulatory Authority of Egypt.]
- Gas Regulatory Authority, 2018, Executive regulations: Cairo, Egypt, Gas Regulatory Authority, February 14, 32 p. (Accessed January 21, 2020, at https://www.gasreg.org/eg/wp-content/uploads/executive_regulations.pdf.)
- Global Cement News, 2018, Companies reluctant to invest in Egyptian cement industry: Surrey, England [United Kingdom], Global Cement News, January 18. (Accessed March 19, 2019, at <http://www.globalcement.com/news/item/6976-companies-reluctant-to-invest-in-egyptian-cement-industry>.)
- Hafez, A., 2019, Crisis of Egypt's cement sector: Cairo, Egypt, Egyptian Institute for Studies, August 6. (Accessed January 13, 2020, at <https://en.eipss-eg.org/crisis-of-egypts-cement-sector>.)
- Hassan Allam Holding Co., 2018, Fertilizers plants: Cairo, Egypt, Hassan Allam Holding Co. (Accessed April 28, 2021, at <http://www.hassanallam.com/construction/group-profile/project-details/NCIC-Fertilizers-Complex>.)
- Hatfield, A.K., 2021, Cement: U.S. Geological Survey Minerals Commodity Summaries 2021, p. 42–43.
- Hellenic Shipping News Worldwide, 2020, Egypt's push to be east Mediterranean gas hub: Hellenic Shipping News Worldwide, January 17. (Accessed April 26, 2021, at <https://www.hellenicshippingnews.com/egypts-push-to-be-east-mediterranean-gas-hub>.)
- Holding Company for Chemical Industries, 2020, Affiliated companies: Cairo, Egypt, Holding Company for Chemical Industries. (Accessed January 26, 2021, at <http://cihc-eg.com/index.php/user/page/73>.)
- Holding Company for Metallurgical Industries, 2020, Subsidiaries: Cairo, Egypt, Holding Company for Metallurgical Industries. (Accessed January 26, 2021, at <https://mih.eg/subsidiaries/>.)
- International Monetary Fund, 2021, Egypt—Arab Republic of Egypt: Washington, DC, International Monetary Fund. (Accessed February 4, 2021, at <https://www.imf.org/en/Countries/EGY>.)
- Jasinski, S.M., 2021, Phosphate rock: U.S. Geological Survey Mineral Commodity Summaries 2021, p. 122–123.
- Menachery, Martin, 2018, Fluor wins FEED, PMC contract for phosphoric acid plant in Egypt: Dubai, United Arab Emirates, Refining & Petrochemicals Middle East, April 4. (Accessed April 28, 2021, at <https://www.refiningandpetrochemicalsme.com/article-18598-fluor-wins-feed-pmc-contract-for-phosphoric-acid-plant-in-egypt>.)
- Midrex Technologies, Inc., 2020, World direct reduction statistics 2019: Charlotte, North Carolina, Midrex Direct Reduction Corp., 15 p. (Accessed January 25, 2021, at <https://www.midrex.com/wp-content/uploads/Midrex-STATSbook2019Final.pdf>.)
- Ministry of Petroleum and Mineral Resources, 2020a, About the Ministry— Strategic pillars: Cairo, Egypt, Ministry of Petroleum and Mineral Resources. (Accessed January 26, 2021, at <https://www.petroleum.gov.eg/en/mineral-resources/Pages/mining-investment.aspx>.)
- Ministry of Petroleum and Mineral Resources, 2020b, Investment laws— Law No. 72 of 2017 regarding the Investment Law: Cairo, Egypt, Ministry of Petroleum and Mineral Resources. (Accessed January 26, 2021, at <https://www.petroleum.gov.eg/en/investment/rules-decisions/Pages/investment-rules.aspx>.)
- Ministry of Petroleum and Mineral Resources, 2020c, Mineral Resources— International bid No (1) for year 2020: Cairo, Egypt, Ministry of Petroleum and Mineral Resources. (Accessed January 26, 2021, at https://www.petroleum.gov.eg/en/investment/investment-chances/Mop%20Tenders/BidRound1_Round2.pdf.)
- Ministry of Petroleum and Mineral Resources, 2020d, Mineral resources— International bid No (2) for year 2020: Cairo, Egypt, Ministry of Petroleum and Mineral Resources. (Accessed January 26, 2021, at <https://www.petroleum.gov.eg/en/mineral-resources/Documents/%d8%a7%d9%84%d8%a7%d9%86%20%d8%a7%d9%86%d8%ac%d9%8a%d9%84%d9%8a%d8%b2%d9%89-19-11-2020.pdf>.)
- Ministry of Petroleum and Mineral Resources, 2020e, Mining investment opportunities: Cairo, Egypt, Ministry of Petroleum and Mineral Resources. (Accessed January 26, 2021, at <https://www.petroleum.gov.eg/en/mineral-resources/Pages/mining-investment.aspx>.)
- Ministry of Petroleum and Mineral Resources, 2020f, Presidential Decree-law No. 198 of 2014: Cairo, Egypt, Ministry of Petroleum and Mineral Resources, 14 p. (Accessed January 26, 2021, at <https://www.petroleum.gov.eg/en/mineral-resources/lstmineralresourceslawandregulations/Mineral%20Resources%20Law%20No%20198%20of%202014.pdf>.)
- Organization of Arab Petroleum Exporting Countries, 2021, Annual statistical report 2020: Safat, Kuwait, Organization of Arab Petroleum Exporting Countries, 150 p. (Accessed April 28, 2021, at <https://oapec.org/media/97d5c2d2-ca26-4b5d-8e7e-f327a484e66d/1957638299/Annual%20Statistical%20Report/Statistical%20Report%202020%20.pdf>.)
- Perilli, David, 2019, Update on Egypt: Surrey, England [United Kingdom], Global Cement, June 19. (Accessed January 13, 2020, at <https://www.globalcement.com/news/item/9427-update-on-egypt>.)
- Perilli, David, 2020, Update on Egypt: Surrey, England [United Kingdom], Global Cement, September 30. (Accessed January 31, 2021, at <https://www.globalcement.com/news/item/11417-update-on-egypt-september-2020>.)
- Petroleum Future, 2017, [Creation of a \$900 million phosphate company in Al Wadi Al Gadid]: Cairo, Egypt, Petroleum Future, June 20. (Accessed April 18, 2018, at <http://www.petroleumfuture.com>.)
- Phosphate Misr Co. S.A.E., 2020, Operations: Cairo, Egypt, Phosphate Misr Co. (Accessed March 20, 2018, at <http://phosphatemisr.com>.)
- State Information Service, 2019, Sisi opens Phosphatic & Compound Fertilizers Complex in Ain Sokhna: Cairo, Egypt, State Information Service, August 8. (Accessed March 29, 2022, at <https://www.sis.gov.eg/Story/141046/Sisi-opens-Phosphatic-%26-Compound-Fertilizers-Complex-in-Ain-Sokhna?lang=en-us>.)
- Stohy, Alyaa, 2020, Bechtel wins engineering consultant contract for Egyptalum's 7th production line: Cairo, Egypt, Daily News Egypt, October 18. (Accessed January 21, 2021, at <https://dailynewsegypt.com/2020/10/18/bechtel-wins-engineering-consultant-contract-for-egyptalums-7th-production-line>.)
- Suez Steel Co., 2021, Company profile: Suez, Egypt, Suez Steel Co. (Accessed February 8, 2021, at <https://redseasteel.com/en/AboutUs/CompanyProfile>.)
- Thomson Reuters, 2018a, Egypt's new oil refinery to begin test run in third quarter: Thomson Reuters, March 5. (Accessed April 28, 2021, at <https://www.reuters.com/article/us-egypt-oil/egypts-new-oil-refinery-to-begin-test-run-in-third-quarter-idUSKBN1GH2U0>.)
- Thomson Reuters, 2018b, From war room to boardroom—Military firms flourish in Sisi's Egypt: Thomson Reuters, May 16. (Accessed April 28, 2021, at <https://www.reuters.com/investigates/special-report/egypt-economy-military>.)
- Thomson Reuters, 2020, UPDATE 1—Egypt issues new mining law regulations—Cabinet: Thomson Reuters, January 15. (Accessed January 17, 2020, at <https://www.reuters.com/article/egypt-mining/update-1-egypt-issues-new-mining-law-regulations-cabinet-idUSL8N29K4DA>.)
- Thyssenkrupp AG, 2019, ThyssenKrupp wins major order for fertilizer complex in Egypt: Essen, Germany, Thyssenkrupp AG, March 18. (Accessed April 28, 2021, at <https://www.thyssenkrupp-industrial-solutions.com/en/media/press-releases/thyssenkrupp-wins-major-order-for-fertilizer-complex-in-egypt-7232.html>.)
- United Nations Statistics Division, 2020, International trade statistics yearbook 2019—Egypt: New York, New York, United Nation Statistics Division, 396 p. (Accessed January 26, 2021, at <https://comtrade.un.org/pb/downloads/2019/Voll2019.pdf>.)
- U.S. Census Bureau, 2020a, U.S. exports to Egypt by 5-digit end-use code 2010–2019: Washington, DC, U.S. Census Bureau. (Accessed January 25, 2021, at <https://www.census.gov/foreign-trade/statistics/product/enduse/exports/c7290.html>.)
- U.S. Census Bureau, 2020b, U.S. imports from Egypt by 5-digit end-use code 2010–2019: Washington, DC, U.S. Census Bureau. (Accessed January 25, 2021, at <https://www.census.gov/foreign-trade/statistics/product/enduse/imports/c7290.html>.)
- U.S. Energy Information Administration, 2018, Egypt: U.S. Energy Information Administration Country Analysis Brief, May 24, 16 p. (Accessed December 10, 2020, at https://www.eia.gov/international/content/analysis/countries_long/Egypt/egypt.pdf.)
- World Steel Association, 2020, Steel statistical yearbook: Brussels, Belgium, World Steel Association, 42 p. (Accessed February 8, 2021, at <https://worldsteel.org/wp-content/uploads/Steel-Statistical-Yearbook-2020-concise-version.pdf>.)

TABLE 1
EGYPT: PRODUCTION OF MINERAL COMMODITIES¹

(Thousand metric tons, gross weight, unless otherwise specified)

Commodity ²	2015	2016	2017	2018	2019
METALS					
Aluminum, metal:					
Primary	300	296	314	300 ^e	300 ^e
Secondary	90 ^e	70	100 ^e	100 ^e	100 ^e
Copper, refinery, secondary	98	96	100 ^e	100 ^e	100 ^e
Ferrous alloys:					
Ferromanganese ³	12	12	12	13	12
Ferrosilicon ⁴	56	60	61 ^e	61 ^e	61 ^e
Gold, mine, Au content	13,653	17,139	16,951	14,680	14,944
Iron ore, mine:					
Gross weight	1,500	509	565	500	500
Fe content	938	318	353	312	312
Iron and steel:					
Direct-reduced iron	2,451	2,618	4,667	5,753	4,426
Pig iron	500	500	500	500	175
Steel:					
Raw steel	5,506	5,036	6,870	7,807	7,257
Products:					
Hot-rolled	7,676	8,001	8,059	9,598	8,422
Wire rod	873	736	920	1,000 ^e	900 ^e
Manganese, mine:³					
Gross weight	34	19 ^r	36	40	36
Mn content	11	6 ^r	12	13	12
INDUSTRIAL MINERALS					
Barite	7,540	7,500 ^e	7,500 ^e	7,500 ^e	7,500 ^e
Cement, hydraulic, all types	53,940	55,000	53,900 ^r	52,000 ^r	48,700
Clay:					
Bentonite	32,679	45,553 ^r	40,000 ^e	40,000 ^e	40,000 ^e
Kaolin	232	232 ^e	232 ^e	230 ^e	230 ^e
Feldspar, mine	421	400 ^e	400 ^e	400 ^e	400 ^e
Fluorspar	1,105	1,000	1,000 ^e	1,000 ^e	1,000 ^e
Gypsum, crude ⁵	744	1,000 ^e	1,000 ^e	1,000 ^e	1,000 ^e
Lime ^c	720	700	770	800	780
Mica ^c	10	10	10	10	10
Nitrogen, N content:^e					
Ammonia	1,800	2,800	3,700	4,100 ^r	4,200
Urea	1,200	2,200	3,000	3,000	3,000
Phosphate rock:					
Gross weight	4,100	4,300	4,800	5,000 ^e	5,000 ^e
P ₂ O ₅ content	1,230	1,290	1,344	1,500 ^e	1,500 ^e
Phosphate, compounds, phosphoric acid, P ₂ O ₅ content	30 ^e	50 ^e	60 ^e	90 ^r	100 ^e
Quartz	101	101	100 ^e	100 ^e	100 ^e
Salt	1,669	1,700 ^e	1,750 ^e	1,700 ^e	1,700 ^e
Sand and gravel, industrial sand	416	600 ^e	600 ^e	600 ^e	600 ^e
Soda ash, synthetic	130 ^e	40	-- ^e	-- ^e	-- ^e
Sodium, compounds, caustic soda	200 ^r	220 ^r	270 ^r	300 ^r	330
Stone, sand, and gravel, construction:					
Gravel	1,750	580	1,500 ^e	1,500 ^e	1,500 ^e
Stone:					
Crushed:					
Dolomite	24	14	20 ^e	20 ^e	20 ^e
Limestone	175	140	150 ^e	150 ^e	170 ^e
Dimension:					
Granite	2	5 ^e	5 ^e	5 ^e	5 ^e
Marble, block ^c	100	100	100	110	120

See footnotes at end of table.

TABLE 1—Continued
EGYPT: PRODUCTION OF MINERAL COMMODITIES¹

(Thousand metric tons, gross weight, unless otherwise specified)

Commodity ²	2015	2016	2017	2018	2019
INDUSTRIAL MINERALS—Continued					
Sulfur, S content:					
Compounds, sulfuric acid ⁵	150	224	230	350	350
Byproduct, petroleum, elemental	48	74	86	86 ^e	86 ^e
Talc and related materials, pyrophyllite, soapstone, talc metric tons	24,360	21,672	15,000 ^e	15,000 ^e	15,000 ^e
Vermiculite ⁵ do.	8,190	8,000	8,000	8,000	8,000
MINERAL FUELS AND RELATED MATERIALS					
Natural gas:					
Gross million cubic meters	49,338	46,830	55,765	66,900 ^{e,r}	70,000 ^e
Dry basis do.	44,257	42,007	50,671	58,600 ^r	64,900
Petroleum:					
Crude, including condensate thousand 42-gallon barrels	241,630	230,315	220,095	235,000 ^r	231,000
Natural gas liquids do.	23,360	21,900	20,805	20,075	19,345
Refinery:					
Asphalt do.	4,400	4,200	3,700	4,000 ^e	4,000 ^e
Coke do.	1,900	3,300	3,900	4,000 ^e	4,000 ^e
Distillate fuel oil do.	56,000	52,700	51,900	50,400 ^r	50,000 ^e
Gasoline, including naphtha do.	50,300 ^r	31,100 ^r	31,100 ^r	31,100 ^r	31,100 ^e
Kerosene, including jet fuel do.	15,500	17,200	16,500	20,300 ^r	20,300 ^e
Liquefied petroleum gas do.	5,900	5,900	5,800	6,000	6,000 ^e
Lubricants do.	3,000	2,300	2,140	2,200 ^e	2,500 ^e
Residual fuel oil do.	57,300	53,500	52,600	56,600 ^r	57,000 ^e
Other do.	1,300	2,000	3,400	3,500 ^e	3,500 ^e
Total do.	196,000 ^r	172,000 ^r	171,000 ^r	178,000 ^r	178,000 ^e

⁶Estimated. ^rRevised. do. Ditto.

¹Table includes data available through January 27, 2021. All data are reported unless otherwise noted. Totals and estimated data are rounded to no more than three significant digits; may not add to totals shown.

²In addition to the commodities listed, calcium carbonate, coking coal, gemstones, iron oxide pigments, methanol, perlite, a number of metals, such as lead (which was produced from recycled material) and zinc, and manufactured mineral commodities, such as carbon black, may have been produced, but available information was inadequate to make reliable estimates of output.

³Reported by the International Manganese Institute.

⁴Production is for the fiscal year that began on July 1 of the year shown.

⁵Includes anhydrite.

TABLE 2
EGYPT: STRUCTURE OF THE MINERAL INDUSTRY IN 2019

(Thousand metric tons, unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Aluminum, primary and secondary	Aluminium Co. of Egypt (Egyptalum) [Holding Company for Metallurgical Industries (HCMI), 90%, and private interests, 10%]	Smelter at Nag Hammadi, Qena Governorate	320
Aluminum, secondary	Al Qantara for Ferrous Metals Co,	Plant at Al Qantara, Suez Governorate	25
Do.	Arab Aluminium Co. S.A.E.	Plant at Ismaelia	15
Do.	Al Saad Aluminium Co.	Plant at Mostorod, Cairo	10
Do.	Canex Aluminum	Plant at CPC Industrial Zone, 6th of October City	NA
Do.	Egyptian Copper Works Co. [Holding Company for Metallurgical Industries (HCMI)]	Plant at Alexandria	50
Do.	Egyptian Aluminium Products Co. (Alumisr)	Plant at Helwan, Cairo Governorate	12
Do.	Egyptian International Co. for Aluminum Profiles S.A.E.	Plant at 3rd Industrial Zone, Giza Governorate	14
Do.	General Metals Co.	Plant at Helwan, Cairo Governorate	6
Do.	Helwan Company for Non-Ferrous Industries (Ministry of Defense)	do.	45
Do.	Rasheed Performance Minerals Group (RPM)	Plant at Borg El Arab Industrial Development Zone	100
Calcium carbonate	ASCOM Carbonate and Chemical Manufacturing (Qalaa Holding, 100%)	Plant at Industrial Zone, El-Matahra, El Minya Governorate	500
Do.	Misr Quarries Development Co. S.A.E	Plant 4 kilometers from Adabeya Red Sea Port	NA
Carbon black	Alexandria Carbon Black Co. S.A.E. (Egyptian Holding Co. for the Chemical Industry, 49%; Inco-Bharat, 36%; Grasim Industries 15%)	Plant at Amerya, Alexandria Governorate	20
Cement	Alexandria Portland Cement Co. (Government, 77%, and private interests, 23%)	Plant at El Mex, Alexandria Governorate	2,200
Do.	Ameryah Cement Co. [Cimentos de Portugal, SGPS, S.A. (Cimpor)]	Plant Burg Al Arab, Alexandria Governorate	4,800
Do.	Arab Swiss Engineering Co. (ASEC) (Suez Cement Co., 68.7%)	Plant at Helwan, Cairo Governorate	3,615
Do.	Arabian Cement Co. (Cementos La Union S.A.)	Plant at Ain Al-Sokhna, Suez Governorate	5,000
Do.	Assiut Cement Co. (Cemex Egypt)	Plant in Assiut Governorate	6,500
Do.	Egyptian Cement Co. (LafargeHolcim Ltd., 74%, and other interests, 26%)	Plant at Ain Al-Sokhna, Suez Governorate	10,000
Do.	El-Arish Cement Co. (Ministry of Defense, 100%)	Plant at El Arish, North Sinai Governorate	7,200
Do.	El Nahda Cement Co. (ASEC Cement, 27.55%; Misr Insurance Co., 10.85%; Egyptian Company for Investment Projects, 10.04%; Egyptian Kuwaiti Investment Co., 9.87%; Misr Company for Life Insurance, 9.37%; National Capital Holding Co., Egyptian Company for Financial Investment, 7.53%; National Investment Bank, 3.32%)	Plant in Qena Governorate	3,300
Do.	El Sewedy Cement Co.	Plant at Attaka, Suez Governorate	2,300
Do.	Medcom Cement Co.	Plant in Aswan Governorate	950
Do.	Misr Beni Suef Cement Co.	Plant in Beni Suef Governorate	3,000
Do.	Misr Qena Cement Co. (ASEC Cement Co.)	Plant at Nasr City, Cairo Governorate	2,000
Do.	National Cement Co. (Government, 77%, and private interests, 23%)	Plant at El Tabbin, Cairo Governorate	3,100
Do.	National Cement Co. Beni Suef (Ministry of Defense, 100%)	Plant in Beni Suef Governorate	13,000
Do.	Royal El Minya Cement	Plant at Samallot, El Minya Governorate	2,690

See footnotes at end of table.

TABLE 2—Continued
EGYPT: STRUCTURE OF THE MINERAL INDUSTRY IN 2019

(Thousand metric tons, unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Cement—Continued		Sinai Cement Co. (Vicat Group)	Plant at El Arish, North Sinai Governorate	3200
Do.		Sinai White Portland Cement Co. (Aalborg Portland A/S)	Plant in North Sinai Governorate	900
Do.		South Valley Cement Co.	Plant at Beni Suef Industrial Zone, Beni Suef Governorate	2,200
Do.		Suez Cement Co. (HeidelbergCement Group)	Plant at Helwan, Cairo Governorate	2,000
Do.		do.	Plant at Kattameya, Cairo Governorate	1,800
Do.		do.	Plant in Suez Governorate	3,800
Do.		do.	Plant at Torah, Cairo Governorate	4,900
Do.		Titan Cement Egypt (Titan Cement Co., 100%)	Plant in Beni Suef Governorate	4500
Clay:				
Bentonite		Rasheed Performance Minerals Group (RPM)	Plant at Borg El Arab Industrial Development Zone, Alexandria	225
Kaolin		El Nasr Mining Co. [Holding Company for Metallurgical Industries (HCMI), 100%]	Mine in Aswan Governorate	NA
Do.		Sinai Manganese Co. [Holding Company for Chemical Industries (HCCI)]	Mine in South Sinai Governorate	100
Coking coal		El Nasr Coke and Chemicals Co. (Government, 100%)	Plant at Helwan, Cairo Governorate	1,400
Copper, refined		Egyptian Copper Works Co. [Holding Company for Metallurgical Industries (HCMI), 100%]	Plant at Hagar El Nouatia, Alexandria Governorate	130
Do.		Egyptian Metal Works	Plant in Cairo Governorate	NA
Dolomite		Misr Quarries Development Co. S.A.E	Plant at Attaka Mountain, Suez Governorate	NA
Feldspar		Mining Engineering Co. (Knouz)	Mine in Aswan Governorate	NA
Do.		Misr Quarries Development Co. S.A.E	Plant at Attaka Mountain, Suez Governorate	NA
Ferromanganese		Sinai Manganese Co. [Holding Company for Chemical Industries (HCCI)]	Abu Zenima Mine, South Sinai Governorate	36
Ferrosilicon		Egyptian Ferroalloys Co.	Plant at Idfo, Aswan Governorate	65
Fluorspar	metric tons	Egyptian Company for Mineral Resources (ECMR)	Mine at Mueilha, Eastern Desert	4,500
Do.	do.	El Nasr Mining Co. [Holding Company for Metallurgical Industries (HCMI), 100%]	do.	5,000
Glass sand		ASCOM Geology and Mining (Qalaa Holding, 100%)	Plant at Minya Industrial zone, El Minya Governorate	180
Gold	kilograms	Sukari Gold Mine Co. [Centamin plc, 50%, and Egyptian Company for Mineral Resources (ECMR), 50%]	Sukari Gold Mine, Eastern Desert, Desert, Red Sea Governorate	18,000
Do.	do.	Hamash Misr for Gold Mines [Cypriot Matz Holdings, 50% and Egyptian Company for Mineral Resources (ECMR), 50%]	Hamash Gold Mine, ¹ Eastern Red Sea Governorate	500
Gypsum		ASCOM Geology and Mining (Qalaa Holding, 100%)	Mine at Ras Sedr, South Sinai	216
Do.		El Nasr Mining Co. [Holding Company for Metallurgical Industries (HCMI), 100%]	Quarries at Edfo, Aswan Governorate	NA
Do.		Modern Suez Gypsum Co. SAE	Mine at Wadi Gharandel, South Sinai Governorate	2,400
Do.		Sinai Manganese Co. [Holding Company for Chemical Industries (HCCI)]	Mine at Ras Mala'ab, South Sinai Governorate	400
Iron and steel:				
Direct-reduced iron		Al Ezz El-Dekheila Steel Co. (EZDK) (Al Ezz Steel Rebars S.A., 55%)	El-Dekheila I, II, III plants, El-Dekheila, Alexandria	2,320
Do.		Ezz Rolling Mills Co. SAE	Plant in Sadat City, Monufia Governorate	1,900
Do.		Egyptian Sponge Iron and Steel Co. (ESISCO) (Beshay Steel Group)	do.	2,000
Do.		Suez Steel Co. (Solb Misr)	Plant in Suez Governorate	2000

See footnotes at end of table.

TABLE 2—Continued
EGYPT: STRUCTURE OF THE MINERAL INDUSTRY IN 2019

(Thousand metric tons, unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Iron and steel:—Continued			
Iron ore	Egyptian Iron and Steel Co. (Hadisob) (Government, 100%)	Mine at El-Gedida, El Bahariya Oasis, Giza Governorate	1,200
Iron oxides	El Nasr Mining Co. [Holding Company for Metallurgical Industries (HCMI), 100%]	Mines in Aswan and Sinai Governorates	150
Do.	TAS Flowrance Group	Mines in Aswan, Sinai, Western Desert	120
Steel:			
Flat	Al Ezz El-Dekheila Steel Co. (EZDK) [Al Ezz Steel Rebars S.A. (Ezz Steel), 55%]	Plant in Alexandria Governorate	1,100
Do.	Ezz Flat Steel Co. [Al Ezz Steel Rebar S.A. (Ezz Steel), 55%]	Plant in Suez Governorate	1,200
Do.	Egyptian Iron and Steel Co. (Hadisob) [Holding Company for Metallurgical Industries (HCMI), 100%]	Plant at Helwan, Cairo Governorate	1,000
Raw	Al Ezz El-Dekheila Steel Co. (EZDK) [Al Ezz Steel Rebars S.A. (Ezz Steel), 55%]	Plant in Alexandria Governorate	6,000
Do.	Egyptian Iron and Steel Co. (Hadisob) [Holding Company for Metallurgical Industries (HCMI), 100%]	Plant in Helwan, Cairo Governorate	600
Do.	Egyptian American Steel Rolling Co. S.A.E (Beshay Steel Group)	Plant in Sadat City, Monufia Governorate	3,000
Do.	Egyptian Steel Group	Plant at Ain Al-Sokhna, Suez	830
Do.	IIC For Steel Plants Management Co. (Egyptian Steel Group)	Plant at Beni Suef Governorate	350
Do.	Suez Steel Co. (Solb Misr)	Plant at Suez Industrial Area, Suez Governorate	2,000
Rebar	Al Ezz Steel Rebars S.A. (Ezz Steel)	Plant at Sadat City, Gharbia Governorate	1,000
Do.	Delta Steel Mill Co.	Plant at Qalyubiyah Governorate	200
Do.	Egyptian American Steel Rolling Co. S.A.E (Beshay Steel Group, 100%)	Plant at Sadat City, Gharbia Governorate	1,200
Do.	Egyptian Steel Group	Plant at Ain Al-Sokhna, Suez	500
Do.	do.	Plant at Al Raswa Industrial Zone, Port Said Governorate	530
Do.	Ezz Rolling Mills S.A.	Plant at 10th of Ramadan City, Sharqia Governorate	500
Do.	Ezz Flat Steel Co. [Al Ezz Steel Rebar S.A. (Ezz Steel), 55%]	Plant in Suez Governorate	1,100
Do.	IIC For Steel Plants Management Co. (Egyptian Steel Group)	Plant at Alexandria	300
Do.	International Steel Rolling Mills Co. SAE (Beshay Steel Group, 100%)	Plant at Sadat City, Gharbia Governorate	700
Do.	Kandil Steel	do.	1,000
Do.	Kouta Steel Group	Plant at Port Said	360
Do.	do.	Plant at Alexandria	300
Do.	Misr National Steel Co.	Plant at Heliopolis, Cairo Governorate	360
Do.	National Port Said Steel (Egyptian Steel Group, 100%)	Plant at Port Said	350
Do.	Suez Steel Co. (Solb Misr)	Plant at Ain Al-Sokhna, Suez	2,500
Lime	do.	Plant in Suez Governorate	183
Do.	Egyptian Sponge Iron and Steel Co. (ESISCO) (Beshay Steel Group)	Plant at Sadat City, Gharbia Governorate	200
Do.	Solvay Alexandria Sodium Carbonate S.A.E. (Salvoy S.A.)	Plant at Alexandria	200
Limestone	ASCOM Carbonate and Chemical Manufacturing (Qalaa Holding, 100%)	Mine in El Minya Governorate	500
Do.	Misr Quarries Development Co. S.A.E	Mine at Attaka Mountain, Suez Governorate	NA
Manganese	Sinai Manganese Co. [Holding Company for Chemical Industries (HCCI), 100%]	Abu Zenima Mine, South Sinai Governorate	110
Methanol	Delta Fertilizers and Chemical Industries Co. (ASMEDA) [Holding Company for Chemical Industries (HCCI), 100%]	Plant at Talkha, Dakhlia Governorate	36

See footnotes at end of table.

TABLE 2—Continued
EGYPT: STRUCTURE OF THE MINERAL INDUSTRY IN 2019

(Thousand metric tons, unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Methanol—Continued		Egyptian Methanex Methanol Co. S.A.E [Methanex Corp., 50%; Arab Petroleum Investments Corp. 17%; Egyptian Natural Gas Holding Co. (EGAS), 12%; Egyptian Petrochemical Holding Co., 12%; Egyptian National Gas Co. (GASCO), 9%]	Plant in Damietta Governorate	1,300
Natural gas	million cubic meters	Badr Petroleum Co. (Bapectco) (Government, 100%)	Allam El-Shawish, Amreya, Assil and Karam, Badr 3, Neag 1, Obaiyed gasfields onshore	4,000
Do.	do.	Belayim Petroleum Co. (Petobel) (Egyptian General Petroleum Corp. (EGPC) 50%, Eni Group, 50%)	Abu Madi, Baltim, Nidoco, Qar'a gasfields, offshore	12,000
Do.	do.	Burullus Gas Co. (Egyptian General Petroleum Corp. (EGPC) 50%; Edison International, 25%; Royal Dutch Shell, 25%)	Burullus and Rosetta fields	3,000
Do.	do.	El Wastani Petroleum Co. (WASCO) (Dana Gas PJSC, 50%, Eni Group, Egyptian Natural Gas Holding Co. (EGAS), 50%)	El Wastani gas plant, Nile Delta, Damietta	2,500
Do.	do.	Joint venture (Bp plc, 82.75%; DEA Deutsche Erdoel AG, 17.25%)	West Nile Delta offshore fields, North of Alexandria	15,500
Do.	do.	Khalda Petroleum Co. SAE [Apache Oil Co., 50%; Egyptian General Petroleum Corp. (EGPC), 50%]	Kahraman B-22 and Qasr gasfields, onshore, Western Desert	5,274
Do.	do.	Pharaonic Petroleum Co. SAE (BP p.l.c., 50%, and Eni Group, 50%)	Baltim, El Temsah, Ras el Barr, North Port Said gasfields, offshore	10,000
Do.	do.	Rashid Petroleum Co. S.A.E [Egyptian General Petroleum Corp. (EGPC), 50%; Royal Dutch Shell, 40%; Edison Gas Holding, 10%]	Rashid gasfield, offshore, West Waters Deep Marine, Mediterranean Sea	3,300
Do.	do.	Shorouk Petroleum Co. SAE (Eni Group, 40%; NK Rosneft' PAO, 30%; Belayim Petroleum Co. SAE, 10%; BP p.l.c., 10%; Mubadala Petroleum, 10%)	Zohr gasfield, Shorouk Block, offshore, Mediterranean Sea	20,680
Nitrogen:				
Ammonia		Abu Qir Fertilizer & Chemical Industries Co. [Private and public interests, 80.9%, and Egyptian General Petroleum Corp. (EGPC), 19.1%]	Abu Qir I plant at Al Tabia, Alexandria	420
Do.		do.	Abu Qir II plant at Al Tabia, Alexandria	365
Do.		Alexandria Fertilizer Co. (Alexfert) (Private, 80%, and Abu Qir Fertilizer & Chemical Industries Co., 20%)	Plant at Alexandria	730
Do.		Egypt Basic Industries Corp. (EBIC) [OCI N.V., 60%, and Egyptian General Petroleum Corp. (EGPC), 40%]	Plant at Ain Al-Sokhna, Suez Governorate	730
Do.		Egyptian Chemical Industries (KIMA) (Chemical Industries Holding Co., 60%; public organizations, 33.5%; private investors, 6.5%)	KIMA 1 plant at Aswan	330
Do.		do.	KIMA 2 Plant at Aswan	396
Do.		Delta Fertilizers and Chemicals Industries (ASMEDA) [Holding Company for Chemical Industries (HCCI)]	Plants at Talkha, Mansoura	725
Do.		El-Nasr Company for Intermediate Chemicals (Ministry of Defense, 100%)	Plant at Ain Al-Sokhna, Suez Governorate	440
Do.		El Nasr Fertilizers and Chemicals Co. (SEMADCO) [Holding Company for Chemical Industries (HCCI)]	Plant at Attaka Mountain, Suez Governorate	132
Do.		Helwan Fertilizers Co.	Plant at Helwan Freezone, Cairo Governorate	400
Do.		Misr Fertilizer Production Co. S.A.E. (MOPCO) [Egyptian Petrochemical Holdings Co. (ECHEM), 30.75%; Ministry of Finance, 26%; National Investment Bank, 12.82%; Egyptian Natural Gas Holding Co. (EGAS), 7.62%; Egyptian Company for Natural Gas, 5.72%; others, 17.10%]	Plant at Damietta Freezone	876

See footnotes at end of table.

TABLE 2—Continued
EGYPT: STRUCTURE OF THE MINERAL INDUSTRY IN 2019

(Thousand metric tons, unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity	
Nitrogen:—Continued				
Ammonium nitrate	Abu Qir Fertilizer & Chemical Industries Co. [Private and public interests, 80.9%, and Egyptian General Petroleum Corp. (EGPC), 19.1%]	Abu Qir II plant at Al Tabia, Alexandria	876	
Do.	Delta Fertilizers and Chemicals Industries (ASMEDA) [Holding Company for Chemical Industries (HCCI)]	Plants at Talkha, Mansoura, Dakahlia Governorate	328	
Do.	Egyptian Chemical Industries (KIMA) (Chemical Industries Holding Co., 56%; public organizations, 39%; private investors, 5%)	Plant at Aswan	800	
Do.	do.	KIMA 2 plant at Aswan	220	
Do.	Egyptian Fertilizers Co. (EFC) (OCI N.V., 100%)	Plant at Ain Al-Sokhna, Suez Governorate	325	
Do.	El-Nasr Company for Intermediate Chemicals (Ministry of Defense, 100%)	Plant at Ain Al-Sokhna, Suez Governorate	300	
Do.	El Nasr Fertilizers and Chemicals Co. (SEMADCO) [Holding Company for Chemical Industries (HCCI)]	Plant at Attaka Mountain, Suez Governorate	200	
Nitric acid	Abu Qir Fertilizer & Chemical Industries Co. [Private and public interests, 80.9%, and Egyptian General Petroleum Corp. (EGPC), 19.1%]	Abu Qir II plant at Al Tabia, Alexandria Governorate	657	
Do.	Delta Fertilizers and Chemicals Industries (ASMEDA) [Holding Company for Chemical Industries (HCCI)]	Plants at Talkha, Mansoura, Dakahlia Governorate	328	
Do.	Egyptian Chemical Industries (KIMA) (Chemical Industries Holding Co., 56%; public organizations, 39%; private investors, 5%)	Plant at Aswan	600	
Do.	El-Nasr Company for Intermediate Chemicals (Ministry of Defense, 100%)	Plant at Ain Al-Sokhna, Suez Governorate	380	
Do.	El Nasr Fertilizers and Chemicals Co. (SEMADCO) [Holding Company for Chemical Industries (HCCI)]	Plant at Attaka Mountain, Suez Governorate	193	
Urea	do.	Abu Qir I plant at Al Tabia, Alexandria Governorate	566	
Do.	do.	Abu Qir III plant at Al Tabia, Alexandria Governorate	438	
Do.	Alexandria Fertilizer Co. (Alexfert) (Private, 80%, and Abu Qir Fertilizer & Chemical Industries Co., 20%)	Plant at Alexandria	720	
Do.	Egyptian Chemical Industries (KIMA) (Chemical Industries Holding Co., 60%; public organizations, 33.5%; private investors, 6.5%)	KIMA 2 plant at Aswan	520	
Do.	Egyptian Fertilizers Co. (EFC) (OCI N.V., 100%)	Plant at Ain Al-Sokhna	1,550	
Do.	Helwan Fertilizers Co.	Plant at Helwan Freezone, Cairo Governorate	700	
Do.	Misr Fertilizer Production Co. S.A.E. (MOPCO) [Egyptian Petrochemical Holdings Co. (ECHEM), 30.75%; Ministry of Finance, 26%; National Investment Bank, 12.82%; Egyptian Natural Gas Holding Co. (EGAS), 7.62%; Egyptian Company for Natural Gas, 5.72%; others, 17.10%]	Plant at Damietta Freezone, Damietta, Governorate	680	
Perlite	The Egyptian Co. for Perlite Abu Kahalil Group)	Plant at Alexandria	10	
Petroleum:				
Crude	thousand 42-gallon barrels	Belayim Petroleum Co. (Petrobel) [Egyptian General Petroleum Corp. (EGPC), 50%, and International Egyptian Oil Co., 50%]	Belayim oilfield, offshore, Suez Gulf	65,000
Do.	do.	do.	Baltim South West and El Qar'a oilfields, Nile Delta, offshore	36,500
Do.	do.	El Hamra Oil Co. [Egyptian General Petroleum Corp. (EGPC), 50%, and IPR Energy Group, 50%]	Yidma-Alamein oilfield, onshore, Western Desert	4,000
Do.	do.	Esh El Malaha Petroleum Co. (Lukoil Overseas Egypt Ltd., 50%, and Tharwa Petroleum Co., 50%)	West Esh El Mallaha Extension onshore oilfield, Eastern Desert	NA
Do.	do.	Gulf of Suez Oil Co. [Egyptian General Petroleum Corp. (EGPC), 50%, and BP p.l.c., 50%]	October oilfield, offshore, Suez Gulf	45,000

See footnotes at end of table.

TABLE 2—Continued
EGYPT: STRUCTURE OF THE MINERAL INDUSTRY IN 2019

(Thousand metric tons, unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Petroleum:—Continued				
Crude—Continued	thousand 42-gallon barrels			
	do.	Khaldia Petroleum Co. [Egyptian General Petroleum Corp. (EGPC), 60%, and Apache Oil Co., 40%]	Kahraman B-22 and Qasr fields, Western Desert	51,500
	do.	Suez Oil Co. [Egyptian General Petroleum Corp. (EGPC), 50%; Deminex SA, 25%; Repsol S.A., 25%]	Ras Budran oilfield, offshore, Suez Gulf	15,000
	do.	Vega Petroleum Ltd.	Gabal El Zeit oilfield, offshore, Gulf of Suez	1,095
Refined	do.	Alexandria Petroleum Co. (Government, 100%)	Refinery at El-Mex, in Alexandria Governorate	36,500
	do.	Ameriya Petroleum Refining Co. (Government, 100%)	Refinery at Amreya Freezone, Alexandria Governorate	27,375
	do.	Assiut Petroleum Refining Co.[Ganoub El Wadi Holding Co. (Ganope), 100%]	Refinery in Assiut Governorate	18,250
	do.	Cairo Oil Refining Co. (CORC) (Government, 100%)	Refinery at Mostorod, Cairo Governorate	51,830
	do.	do.	Refinery in Tanta, Gharbia Governorate	12,775
	do.	El Nasr Petroleum Co. [Egyptian General Petroleum Co. (EGPC), 100%]	Refinery at Wadi Ferain, South Sinai Governorate	3,103
	do.	do.	Refinery in Suez Governorate	52,195
	do.	Middle East Oil Refinery [Egyptian General Petroleum Corp. (EGPC), 78%; Engineering for Petroleum and Processing Industry (ENPPI), 10%; Petroleum Projects and Technical Consultations Co. (Petrojet), 10%; Suez Canal Bank, 2%]	Refinery at Alexandria Amreya Freezone, Alexandria Governorate	36,500
	do.	Suez Petroleum Processing Co. (Government, 100%)	Refinery in Suez Governorate	24,820
Phosphates:				
Phosphate rock		Al Wadi Al Gadid Company for Mineral Resources and Oil Shale (Wadico) [Ganope, 65%; Petrojet Co., 25%; Egyptian Mineral Resources Authority (EMRA), 5%; Nile Petroleum Co., 5%]	Mine at Al Wadi Al Gadid	1,000
	Do.	El Nasr Mining Co. [Holding Company for Metallurgical Industries (HCMI), 100%]	Mines at El Sebaaya, El Quseir, and Red Sea	5,000
	Do.	Phosphate Misr Co. S.A.E. (PMC) ([National Investment Bank, 50%; Egyptian Mineral Resources Co. (EMCR), 20%; Ganoub El Wadi Holding Co., 15%; Egyptian General Petroleum Corp., 15%])	Abu Tartur Mine, New Valley Mine, Red Sea Mine	5,000
	Do.	Egyptian Company for Mineral Resources (ECMR)	Mine at Aswan	500
Phosphoric acid		Abu Zaabal Fertilizers and Chemicals Co. (private, 100%)	Plant at Qalyubiyah	95
	Do.	El-Nasr Company for Intermediate Chemicals (Ministry of Defense, 100%)	Plant in Giza Governorate	NA
Phosphate fertilizer		do.	do.	NA
	Do.	Abu Zaabal Fertilizers and Chemicals Co. (private, 100%)	Plant in Qalyubiyah Governorate	1,530
	Do.	Egyptian Financial and Industrial Co. (private, 100%)	Plant at Kafr El Zayat	900
	Do.	do.	Plant at Assiut	750
	Do.	Evergrow for Specialty Fertilizers Co.	Plants at Abou Rwash, Giza, Governorate and Sadat City, Gharbia Governorate	105
	Do.	Polyserve for Fertilizers and Chemicals (private, 100%)	Plant in Cairo Governorate	320
	Do.	Suez Company for Fertilizers Production (Egyptian Financial and Industrial Co., 99.8%)	Plant at Ain Al-Sokhna, Suez Governorate	600
Quartz		El Nasr Mining Co. [Holding Company for Metallurgical Industries (HCMI), 100%]	Mine at Aswan	15
	Do.	Egyptian Company for Mineral Resources (ECMR)	Mine at Branice near Marsa Alam	NA
	Do.	International Group for Industrial & Agricultural Investment	Mine in Marsa Alam and Aswan	NA
	Do.	Mining Engineering Co. (Knouz)	Mine in Aswan Governorate	NA
	Do.	Misr Quarries Development Co.	Mine at Attaka Mountain Suez Governorate	NA

See footnotes at end of table.

TABLE 2—Continued
EGYPT: STRUCTURE OF THE MINERAL INDUSTRY IN 2019

(Thousand metric tons, unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Salt	El Mex Salines Co. [Holding Company for Chemical Industries (HCCI), 100%]	Brine at El Mex, Alexandria Governorate	1,400
Do.	do.	Brine in Port Said Governorate	350
Do.	do.	Brine at Borg El Arab, Alexandria Governorate	300
Do.	do.	Mine at Sebika, North Sinai Governorate	2,000
Sand and gravel, industrial sand	Egypt for Mining S.A.E (Multi Min)	Quarries in Abu Heesh Valley, South Sinai Governorate	365
Do.	do.	Quarried in Homayer Valley, South Sinai Governorate	366
Do.	Misr Quarries Development Co. S.A.E	Mine at Attaka Mounitain, Suez Governorate	NA
Do.	Sinai Manganese Co. [Holding Company for Chemical Industries (HCCI), 100%]	Mine in South Sinai Governorate	500
Do.	do.	Mine at Zaafrana, Red Sea Governorate	120
Do.	TAS Flowrance Group	Mines at Zaafrana, Red Sea Governorate, Sinai North and Sinai South Governorates	300
Soda ash, synthetic	Salvoy Alexandria Sodium Carbonate S.A.E.	Plant at Alexandria ²	130
Sodium, compounds, caustic soda	Egyptian Petrochemical Co. [Egyptian General Petroleum Corp. (EGPC), 100%]	do.	120
Sulfuric acid	Abu Zaabal Fertilizers and Chemicals Co.	Plant in Qalyubiyah Governorate	350
Do.	Egyptian Financial and Industrial Co. (private, 100%)	Plant at Kafr El Zayat, Gharbia Governorate	175
Do.	do.	Plant at Assiut, Assiut Governorate	205
Do.	El Nasr Company for Intermediate Chemicals (NCIC) (Ministry of Defense, 100%)	Plant in Alexandria Governorate	165
Do.	do.	Plant at Ain Al-Sokhna, Suez Governorate	70
Do.	El-Nasr Co. for Fertilizer & Chemical Industries (SEMADCO)	Plant at Attaka, Suez Governorate	300
Do.	Evergrow for Specialty Fertilizers Co.	Plants at Abou Rwash, Giza, Governorate and Sadat City, Gharbia Governorate	80
Do.	Middle East Oil Refinery [Egyptian General Petroleum Corp. (EGPC), 78%; Engineering for Petroleum and Processing Industry (ENPPI), 10%; Petroleum Projects and Technical Consultations Co. (Petrojet), 10%; Suez Canal Bank, 2%]	Plant at Alexandria Amreya Freezone	20
Do.	Suez Company for Fertilizers Production (Egyptian Financial and Industrial Co., 99.8%; private investors, 0.2%)	Plant at Ain Al-Sokhna	425
Talc	El Nasr Mining Co. [Holding Company for Metallurgical Industries (HCMI), 100%]	Plant at Aswan	50
Do.	Misr Quarries Development Co. S.A.E	Mine at Attaka Mountain, Suez Governorate	5
Do.	TAS Flowrance Group	Mines at Aswan, Sinai, Western Desert	10
Titanium, ilmenite	El Nasr Mining Co. [Holding Company for Metallurgical Industries (HCMI), 100%]	Mine at Abu Ghosoun, Mersa Alam	120

Do., do. Ditto. NA Not available.

¹On care-and-maintenance status.

²Production stopped in 2016.