science for a changing world

2019 Minerals Yearbook

ALGERIA [ADVANCE RELEASE]

U.S. Department of the Interior
U.S. Geological Survey

December 2023

The Mineral Industry of Algeria

By Mowafa Taib

In 2019, Algeria exported such mineral fuels as crude petroleum, natural gas, and refined petroleum products and industrial mineral commodities, such as ammonia, cement, helium, phosphate rock, and urea. Algeria ranked among the world's leading producers of helium, accounting for nearly 9% of reported world production (world output did not include production data for China, which was unavailable in 2019). The country held 8.2 billion cubic meters of helium resources, including 1.8 billion cubic meters of proven reserves. Algeria was also the world's fourth-ranked producer of pumice and pumicite (pozzolan), accounting for 4.6% of total world output. The country was the world's 10th-ranked producer of natural gas in 2019 and accounted for 2.2% of world output and of total proven reserves; the country was the 3d-ranked supplier of natural gas to Europe after Russia and Norway. Algeria was also the second-ranked crude petroleum producer in Africa after Nigeria and accounted for 1.6% of the world's crude petroleum production; it held 12.2 billion barrels of proven crude petroleum reserves, or 0.7% of the world's total reserves. Algeria was an importer of such mineral commodities as iron ore and iron and steel products; it was the world's 10th-ranked net importer of steel products in 2019 (BP p.l.c., 2020, p. 14, 16, 28, 32, 34, 41–43; Crangle, 2021; Peterson, 2021; World Steel Association, 2020a, p. 27).

In addition to mining such metals as gold, iron ore, silver, and zinc, Algeria produced a wide variety of industrial mineral commodities, such as ammonia, barite, cement, clay (bentonite, common, kaolin), diatomite, dolomite, feldspar, gypsum, lime, perlite, phosphate rock, pumice and pumicite (pozzolan), salt, sand and gravel, schist, stone (limestone and marble), sulfur, travertine, tuff, and urea (table 1).

Algeria's real gross domestic product (GDP) increased, by 0.8% in 2019 compared with an increase of 1.2% in 2018. The country's nominal GDP amounted to $171 billion in 2019. Foreign direct investment (FDI) into Algeria decreased to about $1.4 billion in 2019 from about $1.5 billion in 2018. The decrease was mainly attributed to lower investments directed to exploration and development of hydrocarbon projects. In 2018 (the latest year for which comprehensive information was available), the sources of the FDI were Europe (72%), Asia (13%), North America (10%), and the Middle East (5%) (Ministère de l'Energie, 2019, p. 50–51; United Nations Conference on Trade and Development, 2020, p. 238; International Monetary Fund, 2021, p. 30).

Minerals in the National Economy

In 2019, the hydrocarbon sector continued to be a major contributor to Algeria's economy; it accounted for 19.5% of the GDP compared with 22.2% of the GDP in 2018. The share of hydrocarbon exports in total exports was 94.1% in 2019 compared with 94.4% in 2018. The value of hydrocarbon production decreased by 4.9% in 2019 compared with a decrease of 6.4% in 2018. In 2019, employment in the mining and quarrying sector was 66,151 people, or 0.6% of the country's total employment, and women's share of mining and quarrying sector employment was 3.5%. Mining and quarrying employment in Government-owned companies increased to 7,141 people, or by 2.7% compared with that in 2018. Sonatrach employed 53,443 people in 2019, which was a 3.9% increase from that in 2018 (Danish Arab Partnership Programme, 2020, p. 16; Office National des Statistiques, 2020, p. 22; International Monetary Fund, 2021, p. 30–31; Sonatrach S.p.A., 2021, p. 52).

Government Policies and Programs

Law No. 14–05 of February 24, 2014 (the mining law) replaced law No. 1–10 of July 3, 2001. The regulations of the new mining law No. 14–05 became effective on August 5, 2018, following the publication of Executive Decree No. 18–202, of August 5, 2018. The mining law guarantees parity for all investors, allows separate surface and underground mine tenure, ensures that disputes can be appealed to international arbitrators, gives incentives for importing equipment for mining operations, and provides custom-tariff exemptions and rebates on mineral extraction royalties. The royalty on the value of mineral production ranged between 1.5% for solid combustibles and nonprecious metals and 6% for precious and semiprecious metals and gemstones in addition to a maximum 2% of the profits dedicated to post-mining rehabilitation. The law requires miners to pay a surface tax determined by the size of the concession area and no longer gives priority to state-owned companies over private companies in issuing mining permits, which was previously the mandate under ordinance No. 07–02 of March 1, 2007. The law requires administrative fees for the application for new, renewed, or modified permits for mining prospection; exploration; and production in a concession as well as for quarrying, artisanal mining, and mineral collection. The rates for initial permits range from 30,000 Algerian dinar (DZD) to 100,000 DZD[1] ($251–$838), whereas rates for permit renewals and modifications range from 30,000 DZD to 200,000 DZD ($251–$1,675). Environmental laws applicable to the mineral industry include law No. 03–10 of July 19, 2003, and associated decrees and law No. 05–12 of September 4, 2005. In 2019, the Government continued its golden share policy, which was initiated in 2010, concerning foreign investment in the country. The policy gives the Government majority ownership (that is, at least a 51% share) in the operations of new mineral sector ventures in the country as well as a seat on the company's board of directors, but not voting rights (Library of Congress, 2014; Ministère des Mines, 2020b).

[1]Where necessary, values were converted from Algerian dinar (DZD) to U.S. dollars (US$) at the annual average exchange rate of DZD119.4=US$1.00 for 2019.

The mining sector was administered by the Ministry of Industry and Mines (MIM) in 2019. The MIM was responsible for regulating geologic and mining activities in the country through its respective agencies. Law No. 14 of February 24, 2014, assigns the Agence du Service Géologique de l'Algérie [Geological Survey Agency of Algeria (ASGA)], which was formerly known as the Office National de Recherché Géologique et Minière [National Office of Geologic and Mining Research (ORGM)], the responsibility of overseeing the country's geologic activities and research. Agence Nationale des Activités Minières [National Agency for Mining Activity (ANAM)] is responsible for issuing mining and quarrying permits and promoting investment opportunities in the mining sector. The permits were for construction sand, granite, and limestone. The MIM was pursing economic diversity in the country by promoting investment in large-scale mining projects that involve exploration, mining, and processing of strategic minerals, such as iron ore, phosphate rock, and zinc (Ministère des Mines, 2020a, p. 3).

In December, a new hydrocarbon law (law No. 19–13 of 11 December 2019 relating to hydrocarbon activities) was approved by the Government and was expected to become effective in January 2020. In 2019, Algeria's hydrocarbon sector was regulated by ordinance No. 06–10 of July 29, 2006, which is a supplement to law No. 05–07 of April 28, 2005. The ordinance grants state-owned Sonatrach S.p.A. a 51% ownership of all hydrocarbon projects in the country. The Ministère de l'Energie [Ministry of Energy], which is responsible for the administration of the country's energy resources, had been trying to increase the participation of international petroleum companies in petroleum and natural gas operations by introducing amendments to the hydrocarbon law. Under the revised law (law No. 13–01 of February 20, 2013, which amended Hydrocarbon Law No. 05–07 of April 28, 2005), taxes are assessed on profits rather than on revenue; this change is intended to make exploration of smaller oilfields more viable (Ministère de l'Energie, 2005, 2013; Elliott, 2020).

Production

In 2019, production increased most notably for the following mineral commodities: Direct-reduced iron (DRI), by 1,400%; sulfuric acid, by an estimated 50%; methanol, by 35%; lubricants, by 17%; phosphate rock, by 15% (P_2O_5 content) and 11% (gross weight); and iron ore, by 10%. The increase in DRI was attributed to the ramping up of production, which began in 2018, by the Algerian Qatari Steel Co. (AQS) and Tosyali Algérie Fer et Acier (Tosyali Algérie) in 2019. Production decreased most notably for zinc smelter output, by 73%; bitumen, 38%; super gasoline, by 24%; silver, by an estimated 20%; urea, by an estimated 12%; and cement, by an estimated 11%. Data on mineral production are in table 1.

Structure of the Mineral Industry

There were three types of ownership for the mineral sector companies in Algeria—State owned, privately owned, and partnerships between the state-owned companies and international or domestic companies. Algeria's hydrocarbon sector operations were conducted by Sonatrach (a state-owned company) and several international petroleum companies that were working in Algeria under production-sharing agreements. In 2019, Sonatrach, which was the largest petroleum and natural gas producer in Africa, was responsible for 81% of the country's natural gas production, 78% of its condensate production, 72% of its liquefied petroleum gas (LPG) production, and 59% of its crude petroleum production. The remaining output was produced by international petroleum companies working in partnership with Sonatrach in Algeria. These included Anadarko Petroleum Corp. of the United States; BP Algeria, which was a subsidiary of BP p.l.c. of the United Kingdom; Compañía Española de Petróleos, S.A.U. (CEPSA) of Spain; Enel Group of Italy; Eni Algeria Production BV of Italy; OAO Gazprom of Russia; Partex Oil and Gas Group of Portugal; Petroceltic International PLC of Ireland; Repsol YPF S.A. of Spain; Maersk Olie og Gas AS of Denmark; Statoil ASA of Norway; Talisman Energy Inc. of Canada; and Total Algeria S.p.A. of France (table 2; U.S. Energy Information Administration, 2019; Sonatrach S.p.A., 2021, p. 32–33).

Manal Group represented the Government's interests in Algeria's mining sector; it included Entreprise Nationale des Granulates—also known as National Aggregate Co.—which produced gravel and pozzolan; Société des Mines de Phosphates S.p.A. (SOMIPHOS), which was the state's sole producer of phosphate rock; Société des Mines de Fer d'Algérie S.p.A. (SOMIFER), which produced iron ore; and Enterprise Nationale du Marbre S.p.A. (ENAMARBRE), which produced marble. Nationale des Produits Miniers Non Ferreux et Substances Utiles, S.p.A. (ENOF) [National Company for Nonferrous Products and Useful Materials] was the state-owned mining company that operated 18 mines and quarries in the northern part of Algeria; it produced aggregates, barite, bentonite, calcium carbonate (calcite), feldspar, and zinc. ENOF was a partner with Sonatrach in Société Nationale de la Baryte (ALBARYTE) S.p.A. for the production of barite; with Federal White Cement Ltd. of Canada in Société des Kaolins d'Algérie S.p.A. (SOALKA) for the production of kaolin; and with Terramin Australia Ltd. of Australia in Western Mediterranean Zinc S.p.A. (WMZ) for the development of a zinc mine in Tala Hamza. Sonatrach was a major stakeholder in Entreprise d'Exploitation des Mines d'Or S.p.A. (ENOR), which produced gold and silver (table 2; Ministère de l'Industrie et des Mines, 2019; Nationale des Produits Miniers Non Ferreux et Substances Utiles, S.p.A., 2020a).

Mineral Trade

According to the International Monetary Fund, the value of Algeria's total exports decreased to $35.3 billion in 2019 from $41.2 billion in 2018. Hydrocarbon exports decreased to $33.2 billion in 2019 from $38.9 billion in 2018. According to the Organization of the Petroleum Exporting Countries (OPEC)'s Annual Statistical Bulletin, crude petroleum exports decreased in value to $22.7 billion in 2019 from $26.1 billion in 2018, although they increased in volume by 2.2%, to 584,200 barrels per day (bbl/d) in 2019 from 571,000 bbl/d in 2018. Algeria's crude petroleum exports went to the regions of Europe (62%), Asia and the Pacific (23%), Latin America (8%), the Middle East (4%), and North America (3%). Algeria's natural gas exports decreased by 17.4% in volume, to 42.5 billion cubic meters in 2019 from 51.4 billion cubic meters in 2018. The volume of condensate and natural gas exports increased by 2.1% and 1%, respectively, whereas that of liquefied natural gas (LNG) exports decreased, by 18.9%; crude petroleum, by 12.2%; refined petroleum products, by 8.3%; and LPG, by, 4.5%. Algeria delivers natural gas to Europe by pipeline under the Mediterranean Sea, and the sharp decrease in natural gas exports was attributed to decreased demand for Algerian natural gas by Europe as a result of the competition by other natural gas and LNG producers, such as Australia, Russia, and the United States, who have been working on increasing their exports to Europe (Ministère de l'Energie, 2019, p. 22; Slimani and Dezem, 2019; Organization of the Petroleum Exporting Countries, 2020, p. 10, 17, 46, 48, 78, 80; International Monetary Fund, 2021, p. 30–31).

Algeria's exports to the United States, which were mainly hydrocarbon products, decreased by 46% to $2.5 billion in 2019 from $4.6 billion in 2018. The sharp decrease in the value of Algeria's total exports was attributed to the decrease in crude petroleum exports to $528 million from $2.1 billion in 2018 and to the decrease in fuel oil exports to $1.7 billion from $2.3 billion in 2018. Exports of other petroleum products decreased to about $6 million in 2019 from $52 million in 2018, and exports of LPG decreased to zero from $7 billion in 2018. Exports of chemical fertilizers increased to $116 million in 2019 from $110 million in 2018 and exports of inorganic chemicals (helium) increased to $9 million from $1 million in 2018. In 2019, Algeria exported iron and steel mill products worth about $37 million to the United States for the first time (U.S. Census Bureau, 2022b).

Algeria's total imports decreased to $44.6 billion in 2019 from $48.6 billion in 2018. Mineral commodity imports included mainly iron and steel and petroleum products. The volume of petroleum products imports increased by 150% to 15.7 million barrels (Mbbl) in 2019 from 6.3 Mbbl. The sharp increase in imports of petroleum products was attributed to the shutdown of crude-petroleum-processing operations abroad in the second half of 2019 and to the increase in domestic consumption. Imports of semifinished and finished steel products increased to 3.4 million metric tons (Mt) in 2019 from 3.2 Mt in 2018 (Organization of the Petroleum Exporting Countries, 2020, p. 10, 18, 55; World Steel Association, 2020a, p. 27; 2020b, p. 13; International Monetary Fund, 2021, p. 31).

Algeria's imports from the United States decreased to $1.0 billion in 2019 from about $1.3 billion in 2018. The main mineral-related export categories were fuel oil ($118 million), chemicals (all types) ($13 million), iron and steel products ($6 million), and other petroleum products ($1 million) (U.S. Census Bureau, 2022a).

Commodity Review

Metals

Iron and Steel.—Algeria's raw steel production was estimated to have increased to 2 Mt in 2019 and 2018 from 415,000 metric tons (t) in 2017. The increase in raw steel output in 2018 was attributed to the operation at full capacity of the major steel companies in the country—AQS, EPE SIDER El Hadjar S.p.A., and Tosyali Algérie. However, Algeria remained a net importer of steel products; its net imports amounted to 3.2 Mt in 2019 (table 1; World Steel Association, 2020a, p. 27).

In 2019, IMETAL S.p.A. or IMETAL Group comprised several metallurgical and steel companies, which represented the state-owned iron and steel enterprise. IMETAL held a majority and minority interest in several domestic and international iron and steel companies and steel plants in Algeria. The group was responsible for the operation of the Annaba steel complex, which produced raw steel and other steel products at its electric arc furnace plant and mill in El Hadjar, Annaba Province. The Boukhadra and the Ouenza iron ore mines, which are located in Tebessa Province in eastern Algeria, were operated by Société des Mines de Fer de l'Est, which was owned by Manal Group (79%), and EPE SIDER El Hadjar S.p.A. (21%). Mineral resources at the Boukhadra Mine were estimated to be 47.1 Mt grading 48% iron, and those at the Ouenza Mine were 80.3 Mt grading 59.5% iron (table 2; Ministère des Mines, 2020c).

In 2019, AQS, which was a joint venture of Qatar Steel International (49%), IMETAL Group (46%), and Fonds National de l'Investissement (FNI) (5%), produced raw steel and other steel products at its complex in the Bellara Industrial Zone in Jijel Province. The complex had an initial production capacity of 2 million metric tons per year (Mt/yr) of steel reinforcement bar (rebar), raw steel, and wire rod. The company planned to expand production at the complex. When the expansion project is completed by 2022, AQS is expected to have the capacity to produce 4 Mt/yr of steel products and 2.5 Mt/yr of DRI (Algerian Qatari Steel Co., 2020; IMETAL Group, 2020).

Tosyali, which was owned by Tosyali Holding of Turkey, began producing rebar at its iron and steel plant in the city of Oran in 2013. Tosyali's plant had the capacity to produce 1.2 Mt/yr of rebar. The company had the capacity to produce 1.6 Mt/yr of liquid steel using 1.4 Mt/yr of domestic and imported scrap iron and steel. In 2019, Tosyali completed building a 2.5-Mt/yr DRI plant at Bethioua in Oran Province that uses pelletized iron ore as a feedstock, which came from the company's 4-Mt/yr pelletizing plant in Oran, which was completed in 2018. Iron ore for the pelletizing plant was imported to Algeria's Arzew Port and transported by a conveyor belt to the pellet plant in Oran (Midrex Technologies Inc., 2020, p. 5, 13; Tosyali Algérie Fer et Acier, 2020; Tosyali Holding, 2021).

Société Nationale du Fer et de l'Acier [National Iron and Steel Co. S.p.A. (Feraal)] was created by the Government in 2014 to develop the iron ore deposits at Gara Djebilet and Mecheri Abdelaziz, which are located in southwestern Algeria near the border with Mauritania. Feraal was owned by IMETAL (35%), Manal (25%), and GICA and Sonatrach International Holding Corp. (20% each). Iron ore resources at Gara Djebilet and Mecheri Abdelaziz were estimated to be more than 2.2 billion metric tons (Gt). The iron ore deposits at Gara Djebilet are in the Reguibat Shield, which extends into Mauritania, and hosts 1,540 Mt of iron ore grading 56% iron. The Mecheri Abdelaziz deposit is located east of Gara Djebilet and holds 702 Mt of iron ore grading 52% iron. The Government planned to begin production of between 15 and 20 Mt/yr of iron ore from the Gara Djebilet project by 2025. In 2017, Feraal signed a memorandum of understanding with Sinosteel Equipment and Engineering of China to conduct a prefeasibility and feasibility studies for the development of the iron ore deposit in the Gara Djebilet region. The results of Sinosteel's prefeasibility and feasibility studies identified sufficient iron ore deposits to support building a pelletizing and DRI plant in the project area (DKnews, 2017; Ministère des Mines, 2020c, p. 5).

Lead and Zinc.—Zinc concentrate production in Algeria, which was resumed in 2015, came from the Kherzet Youcef Mine, which is located in Ain Azal, in Setif Province. The mine was operated by ENOF. In 2019, zinc content in the concentrate was reported to be 53.3%. Mineral resources at the Kherzet Youcef Mine were estimated to be 1.6 Mt grading 18% zinc and 3.6% lead (table 1; Nationale des Produits Miniers Non Ferreux et Substances Utiles, S.p.A., 2020b; Ministère des Mines, 2020a).

In 2019, the Tala Hamza lead and zinc mining project, which was being developed by WMZ, was awaiting Government final approval. The 125-square-kilometer Oued Amizour exploration permit, which is located 15 kilometers (km) southwest of the Port of Bejaia in northeastern Algeria, was held by WMZ. WMZ was a joint venture of Terramin (65%), ENOF (32.5%), and the ASGA (2.5%) formed in 2009 to develop a zinc mine in the project area. As of yearend 2019, the total resource (measured, indicated, and inferred) at the Tala Hamza deposit was 68.6 Mt grading 1.2% lead and 4.6% zinc at a zinc cutoff rate of 2.5%. Terramin expected the Tal Hamza zinc mine to be among the top 10 zinc mines in the world in terms of annual output and to have a mine life of 29 years (Terramin Australia Ltd., 2020).

Industrial Minerals

Cement.—Algeria's cement production was estimated to have decreased to 27.7 Mt in 2019 from 31.1 Mt in 2018. The decrease was attributed to weak domestic demand. Algeria's cement production capacity was expected to increase to 40 Mt by 2020 and to 46 Mt by 2025, about one-half of which would be a surplus. Algeria's cement exports increased to 2.5 Mt in 2019 from 500,000 t in 2018. In 2019, there were six cement companies that operated 25 integrated cement plants in the country. The state-owned Groupe Industriel des Ciments d'Algérie (GICA) and LafargeHolcim Ltd. of Switzerland were the main producers of cement in the country, accounting for more than 50% and 28% of total capacity, respectively. GICA operated 12 cement plants and produced 11.7 Mt in 2019 compared with 13.6 Mt in 2018; it was implementing its plan to increase capacity to 20 Mt/yr of cement by 2020. The increase would come from the commissioning of two 1-Mt/yr-capacity plants at Ben Zireg (Bechar Province) and El Bayadah Province; a 2-Mt/yr-capacity plant at Sigus, Oum El Bouaghi Province; 2-Mt/yr-capacity expansions at the Ain El Kebira (Setif Province), and the Oued Sly (Ech Chlef Province) properties; and a 1.5-Mt/yr plant at Zahana, Mascara Province. LafargeHolcim Algérie's three plants in M'Sila, Oggaz, and Biskra had a combined cement production capacity of 12 Mt/yr. CILAS S.p.A. was a joint venture of Souarki Group (51%) and LafargeHolcim Ltd. (49%) that operated the CILAS cement plant at Biskra in Biskra Province. The 2.7-Mt/yr-capacity plant was commissioned in 2017 (tables 1, 2; Merzak Zeboudj, Engineer and Industrial Development Director, Groupe Industriel des Ciments d'Algérie, oral commun., October 31, 2018; International Cement Review, 2019; CW Group, 2020; Groupe Industriel des Ciments d'Algérie, 2020; Office National des Statistiques, 2020, p. 36).

Nitrogen.—Algeria's production of ammonia (N content) was estimated to have decreased by 35,000 t to 2.2 Mt in 2019. Subsequently production of urea (N content) decreased by about 200,000 t to 1.4 Mt in 2019 from about 1.6 Mt in 2018. The decrease in ammonia and urea output was attributed to a halt in production by El Sharika El Djazairia El Omania lil Asmida S.p.A. (AOA) (Thapliyal, 2017; Ministère de l'Energie, 2019, p. 17).

In 2019, Sorfert Algérie S.p.A. was the leading producer of ammonia and urea in Algeria. Sorfert was a joint venture of OCI N.V. of the Netherlands (51% interest) and Sonatrach (49% interest); it had the capacity to produce 1.60 Mt/yr of ammonia and about 1.26 Mt/yr of urea at its fertilizer complex in the Arzew Industrial Zone, which included two plants. Sorfert supplied 1.1 Mt/yr of urea to the domestic market and 700,000 metric tons per year (t/yr) of ammonia for export, mainly to Western Europe (table 2; OCI N.V., 2020).

Fertial S.p.A. was a joint venture of Grupo Villar Mir of Spain (49%), Asmidal Group (34%), and ETRHB Haddad Group (17%). The company had the capacity to produce 850,000 t/yr and 365,000 t/yr of ammonia at its plants in Arzew and Annaba, respectively. Fertial also produced nitrogen and phosphate fertilizers (table 2; Fertial S.p.A., 2020a, b).

AOA was a joint venture of Suhail Bahwan Group (Holding) L.L.C. of Oman (51% interest) and Sonatrach (49% interest); it owned two plants for producing ammonia and urea in the Arzew Industrial Zone near Oran in northwestern Algeria. AOA had the capacity to produce about 1.5 Mt/yr of ammonia and 2.6 Mt/yr of urea, and the entire output of urea was exported to countries in the Americas and Europe (Thapliyal, 2017; Suhail Bahwan Group, 2020).

Phosphate Rock.—Algeria's output of phosphate rock increased by 11% to 1.3 Mt in 2019 from 1.2 Mt in 2018. Most of the phosphate ore produced at the Djebel Onk Mine in Tebessa Province by Société des Mines de Phosphates S.p.A. (SOMIPHOS) was exported to countries in Europe (France, Greece, Italy, Poland, and Ukraine) and to Brazil, India, and Turkey. Algeria's output of phosphate rock, which averaged 1.24 Mt/yr during the past 5 years, was relatively small compared with the country's estimated resources of 2.2 Gt, which were the world's fourth-ranked reserves after Morocco and Western Sahara and China. Thus, the Government has been working on increasing the country's phosphate rock production capacity to 8 Mt/yr by 2022 and to 13 Mt/yr by 2025. In 2018, the Government created a joint venture with CITIC Group Corporation Ltd. and Wengfu Group of China to develop a $6 billion phosphate mining project at the Bled El Hadba Mine in Tebessa Province and a fertilizer-processing complex at Skikda Province. Sonatrach was expected to hold 51% interest in the project, whereas CITIC and Wengfu Groups would hold a combined interest of 49% (table 1; Ghanmi, 2018; Jasinski, 2021).

Mineral Fuels

Crude Petroleum, Refined Petroleum Products, and Natural Gas.—In 2019, Algeria's crude petroleum production (including condensate) decreased to 452 Mbbl from 459 Mbbl in 2018, and that of dry natural gas decreased to 90.3 billion cubic meters from 97.5 billion cubic meters in 2018. Commercial production of natural gas liquids decreased to 90.2 Mbbl in 2019 from about 92.0 Mbbl in 2018, whereas production of methanol and some refined petroleum products. such as distillate fuel oil, kerosene (including jet fuel), liquefied petroleum gas, and residual fuel oil, increased. Sonatrach made 7 crude petroleum discoveries and 12 natural gas discoveries in 2019 compared with 15 crude petroleum discoveries and 15 natural gas discoveries in 2018. The number of active rigs in Algeria decreased by 8 to 42 in 2019 from 50 in 2018, and the number of wells completed decreased by 12 to 265 from 277 (table 1; Ministère de l'Energie, 2020a, p. 5–6; Organization of Arab Petroleum Exporting Countries, 2020, p. 20, 22; Organization of the Petroleum Exporting Countries, 2020, p. 23–24).

In 2019, Sonatrach was developing several natural gas projects on its own and in partnership with foreign companies operating in Algeria. These projects included the In Salah expansion with BP; the Isarene (Ain Tsila) project with Petroceltic and Enel S.p.A. of Italy; the Menzel Ledjmet East project and the South West Gas project phase 1 (Tout gasfield) with Engie S.A. of France, the South West Gas Project phase 2 (Ahnet) project with Partex and Total, Hassi Ba Hamou, and Hassi Mouina; and the Tinhert project in Iillizi basin. First gas from the Timimoun Gasfield, which is located in southwestern Algeria, was announced by Total in 2018. The gasfield had the capacity to produce 1.8 billion cubic meters per year of natural gas and was jointly operated by Sonatrach (51%), Total (37.75%), and Cepsa (11.25%) (Total Energies, 2018; Ministère de l'Energie, 2019, p. 6, 8; U.S. Energy Information Administration, 2019).

In March, Sonatrach signed a $1 billion engineering, procurement, and construction contract (EPC) with Petrofac Ltd. of the United Kingdom for development of the Ain Tsila project. The Ain Tsila field, which is located 1,100 km southeast of Algiers, was expected to produce condensate, LPG, and natural gas for domestic consumption and export (World Oil, 2019).

Algeria's refinery throughput decreased to 569,000 bbl/d in 2019 from 601,000 bbl/d in 2018. The country's installed crude petroleum and condensate refining capacity remained at 657,000 bbl/d in 2019. The country's largest refinery, which was owned by Société Nationale de Raffinage de Pétrole S.p.A. (NAFTEC; a subsidiary of Sonatrach) and is located in Skikda Province, had the capacity to refine 355,300 bbl/d of crude petroleum and 122,200 bbl/d of condensate. Other petroleum refineries are located at Adrar (12,900 bbl/d), El Harrach (58,100 bbl/d), Arzew (80,800 bbl/d), and Hassi Messaoud (21,500 bbl/d). The Government was building four new 100,000-bbl/d-capacity refineries in Biskra, Ghardaia, Hassi Messaoud, and Tairet Provinces. Construction of the new refineries was originally expected to be completed by 2018, but construction plans were delayed until 2020. In 2019, Sonatrach was finalizing a $3.7 billion EPC contract with consortium of Técnicas Regañidas of Spain (55%) and Samsung Engineering Co. Ltd. of the Republic of Korea (45%) to build a new 5-Mt/yr (110,000-bbl/d) refinery at Haoud El Hamra near the Hassi Messaoud petroleum hub (table 2; Calik, 2020; Ministère de l'Energie, 2020b; Organization of the Petroleum Exporting Countries, 2020, p. 32).

Outlook

The International Monetary Fund projected that the Algerian economy would contract by 4.9% in 2020 owing mainly to the effects of the coronavirus disease (COVID–19) pandemic and would recover in 2021 by expanding by 3.2%. Algeria, which had been an importer of cement for decades, became an exporter in 2018 and was expected to increase its exports to Africa and Europe in the short term. The country also planned to become self-sufficient in steel by producing 12 Mt/yr by 2020. In addition to developing its conventional and unconventional natural gas resources, the Government was focusing on developing its industrial minerals and metallic mineral resources, mainly iron ore, phosphate rock, and zinc. By 2025, Algeria expects to start producing between 15 and 20 Mt/yr of iron ore and to increase phosphate rock production to 13 Mt/yr (International Monetary Fund, 2021, p. 30).

References Cited

Algerian Qatari Steel Co, 2020, About: Jijel, Algeria, Algerian Qatari Steel. (Accessed February 18, 2021, at https://aqs.dz/about.)

BP p.l.c., 2020, BP statistical review of world energy: London, United Kingdom, BP p.l.c., 65 p. (Accessed February 18, 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.)

Calik, Ayden, 2020, Algeria finally advances major refinery project: Nicosia, Cyprus, MEES, January 10. (Accessed February 26, 2021, at https://www.mees.com/2020/1/10/refining-petrochemicals/algeria-finally-advances-major-refinery-project/6ed695c0-3307-11ea-9581-e15486536f0d.)

Crangle, R.D., Jr., 2021, Pumice and pumicite: U.S. Geological Survey Mineral Commodity Summaries 2021, p. 128–129.

CW Group, 2020, Algerian cement production capacity to increase to over 46 million tons by 2025 amidst oversupply scenario: Greenwich, Connecticut, CW Group, November 19. (Accessed February 25, 2021, at https://www.cwgrp.com/cemweek-features/531590-algerian-cement-production-capacity-to-increase-to-over-46-million-tons-by-2025-amidst-oversupply-scenario?switch_to_desktop_ui=44.)

Danish Arab Partnership Programme, 2020, Labour market report—Algeria 2020: Copenhagen, Denmark, Danish Arab Partnership Programme, 40 p. (Accessed April 8, 2022, at https://www.ulandssekretariatet.dk/wp-content/uploads/2020/06/LMR-Algeria-2020-final-version1.pdf.)

DKnews, 2017, Iron deposit of Gara-Djebilet—The feasibility study entrusted to Chinese Sinosteel: DKnews [Ben Aknoun, Algeria], March 13. (Accessed March 7, 2021, at http://dknews-dz.com/article/76989-gisement-de-fer-de-gara-djebilet-letude-de-faisabilite-confiee-au-chinois-sinosteel.html.)

Elliott, Stuart, 2020, Algeria's new hydrocarbon law comes into force amid output slump: London, United Kingdom, S&P Global Platts, January 6. (Accessed June 17, 2021, at https://stage.www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/010620-algerias-new-hydrocarbon-law-comes-into-force-amid-output-slump.)

Fertial S.p.A., 2020a, Outils de production [Production facilities]: Annaba, Algeria, Fertial S.p.A. (Accessed February 25, 2021, at https://www.fertial-dz.com/outil.html.) [In French.]

Fertial S.p.A., 2020b, Qui sommes-nous? [Who are we?]: Annaba, Algeria, Fertial S.p.A. (Accessed February 25, 2021, at https://www.fertial-dz.com/index.html.) [In French.]

Ghanmi, Lamine, 2018, Algeria to build $6 billion phosphate plant with China: The Arab Weekly [London, United Kingdom], December 7. (Accessed March 8, 2019, at https://thearabweekly.com/algeria-build-6-billion-phosphate-plant-china.)

Groupe Industriel des Ciments d’Algérie, 2020, Subsidiaires: Algiers, Algeria, Groupe Industriel des Ciments d’Algérie. (Accessed February 26, 2021, at https://www.gica.dz/subsidiaries.)
IMETAL Group, 2020, Development and partnership: Algiers, Algeria, IMETAL Group. (Accessed February 18, 2021, at http://www.imetal.dz/imetal/en/development-and-partnership.)
International Cement Review, 2019, Algeria, *in* The global cement report (13th ed.): Dorking, United Kingdom, International Cement Review, 30–32 p.
International Monetary Fund, 2021, Algeria—2021 Article IV consultation-press release; and staff report; and statement by the executive director for Algeria: Washington DC, International Monetary Fund, December 2, 65 p. (Accessed April 12, 2022, at https://www.imf.org/en/Publications/CR/Issues/2021/12/01/Algeria-2021-Article-IV-Consultation-Press-Release-and-Staff-Report-and-Statement-by-the-510495.)
Jasinski, S.M., 2021, Phosphate rock: U.S. Geological Survey Mineral Commodity Summaries 2021, p. 123–124.
Library of Congress, 2014, Algeria—New mining law adopted: Washington DC, Library of Congress. (Accessed April 8, 2022, at https://www.loc.gov/item/global-legal-monitor/2014-05-30/algeria-new-mining-law-adopted.)
Midrex Technologies Inc., 2020, 2019 World direct reduction statistics: Charlotte, North Carolina, Midrex Technologies Inc., September 4, 15 p. (Accessed February 7, 2021, at https://www.midrex.com/wp-content/uploads/Midrex-STATSbook2019Final.pdf.)
Ministère de l’Energie, 2005, Loi n° 05-07 du 19 Rabie El Aouel 1426 correspondant au 28 avril 2005 relative aux Hydrocarbures [Law no. 05-07 of Rabie El Aouel 1426 of 28 April 2005 related to hydrocarbons]: Algiers, Algeria, Ministère de l’Energie, 26 p. (Accessed February 22, 2021, at https://www.energy.gov.dz/Media/galerie/loi_13-01_modifiant_loi_hydro_05-07-2013_(2)_5dc02856d3f64.pdf.) [In French.]
Ministère de l’Energie, 2013, Loi n° 13-01 du 19 Rabie Ethani 1434 correspondant au 20 février 2013 modifiant et complétant la loi n° 05-07 du 19 Rabie El Aouel 1426 correspondant au 28 avril 2005 relative aux hydrocarbures [Law No. 13-01 of February 20, 2013 Amending and supplementing law No. 05-07 of 19 Rabie El Aouel 1426 corresponding to April 28, 2005, relating to hydrocarbons]: Algiers, Algeria, Ministère de l’Energie, 17 p. (Accessed February 22, 2021, at https://www.energy.gov.dz/Media/galerie/loi_13-01_modifiant_loi_hydro_05-07-2013_(2)_5dc02856d3f64.pdf.) [In French.]
Ministère de l’Energie, 2019, Bilan des réalisations du secteur de l’energie année 2018 [Review of the achievements in the energy sector for 2018]: Algiers, Algeria, Ministère de l’Energie, 51 p. (Accessed March 4, 2021, at https://www.energy.gov.dz/Media/galerie/bilan-des-realisation_2018_5e11d13a6420a.pdf.) [In French.]
Ministère de l’Energie, 2020a, Bilan énergétique nationale 2019 [National energy report 2019]: Algiers, Algeria, Ministère de l’Energie, 38 p. (Accessed March 4, 2021, at https://www.energy.gov.dz/Media/galerie/bilan_energetique_national_2019_5f7b107553bcd.pdf.) [In French.]
Ministère de l’Energie, 2020b, Produits pétroliers [Petroleum products]: Algiers, Algeria, Ministère de l’Energie. (Accessed February 28, 2021, at https://www.energy.gov.dz/?rubrique=produits-petroliers.) [In French.]
Ministère de l’Industrie et des Mines, 2019, Le Groupe Manal: Algiers, Algeria, Ministère de l’Industrie et des Mines, 2 p. (Accessed January 17, 2021, at http://www.industrie.gov.dz/IMG/pdf/MANAL.pdf.)
Ministère des Mines, 2020a, Bilan des réalisations du plan d’action 2020 [Progress report on action plan 2020]: Algiers, Algeria, Ministère des Mines, 27 p. (Accessed February 11, 2021, at https://mm.edihosts.com/media/articles/up/216384-311220.pdf.) [In French.]
Ministère des Mines, 2020b, Loi minière [Mining law]: Algiers, Algeria, Ministère des Mines, 27 p. (Accessed February 11, 2021, at https://mm.edihosts.com/media/articles/up/122379-311220.pdf.) [In French.]
Ministère des Mines, 2020c, Minerais métalliques [Metallic minerals]: Algiers, Algeria, Ministère des Mines. (Accessed February 11, 2021, https://mm.edihosts.com/86-Minerais-mtalliques.) [In French.]
Nationale des Produits Miniers Non Ferreux et Substances Utiles, S.p.A., 2020a, Unités substances utiles [Production units]: El Harrach, Algeria, Nationale des Produits Miniers Non Ferreux et Substances Utiles, S.p.A. (Accessed February 19, 2021, at http://enof.dz/v/unites-substances-utiles.) [In French.]
Nationale des Produits Miniers Non Ferreux et Substances Utiles, S.p.A., 2020b, Concentre de zinc [Zinc concentrate]: El Harrach, Algeria, Nationale des Produits Miniers Non Ferreux et Substances Utiles, S.p.A. (Accessed February 19, 2021, at http://enof.dz/v/wp-content/uploads/2020/03/Concentre-ZINC.pdf .) [In French.]
OCI N.V., 2020, Operations—Fertiglobe: Amsterdam, Netherlands, OCI N.V. (Accessed February 26, 2021, at https://www.oci.nl/operations/fertiglobe.)
Office National des Statistiques, 2020, Collection statistiques N 218/2020 [Statistical collection N 218/2020]: Algiers, Algeria, Office National des Statistiques, 43 p. (Accessed February 6, 2021, at https://www.ons.dz/IMG/pdf/industrielle-cs2010-2019.pdf.) [In French.]
Organization of Arab Petroleum Exporting Countries, 2020, Annual statistical report 2019: Safat, Kuwait, Organization of Arab Petroleum Exporting Countries, 150 p. (Accessed January 13, 2021, at https://oapecorg.org/Home/Publications/Reports/Annual-Statistical-report.)
Organization of the Petroleum Exporting Countries, 2020, Annual statistics bulletin—2019: Vienna, Austria, Organization of the Petroleum Exporting Countries, 129 p. (Accessed February 5, 2021, at https://asb.opec.org/ASB_Chapters.html.)
Peterson, J.P., 2021, Helium: U.S. Geological Survey Mineral Commodity Summaries 2021, p. 76–77.
Slimani, Salah, and Dezem, Vanessa:, 2019, Algeria squeezed in Europe’s gas market by a flood of LNG: World Oil, November 22. (Accessed February 26, 2021, at https://www.worldoil.com/news/2019/11/22/algeria-squeezed-in-europe-s-gas-market-by-a-flood-of-lng.)
Sonatrach S.p.A., 2021, Rapport annuel 2019 [Annual report 2019]: Algiers, Algeria, Sonatrach S.p.A., 77 p. (Accessed June 22, 2021, at https://sonatrach.com/wp-content/uploads/2020/12/Rapport-Annuel-2019.pdf.) [In French.]
Suhail Bahwan Group, 2020, Algeria Fertilizer JV: Muscat, Oman, Suhail Bahwan Group. (Accessed October 23, 2023, at https://www.suhailbahwangroup.com/business-verticles/chemicals-and-fertilizers/algeria-fertilizer-jv.)
Terramin Australia Ltd., 2020, Tala Hamza zinc project: Strathalbyn, South Australia, Australia, Terramin Australia Ltd. (Accessed February 11, 2021, at https://www.terramin.com.au/tala-hamza-zinc-1.)
Thapliyal, Dipeeka, 2017, Algeria’s AOA to restart urea plant after nearly six months: London, United Kingdom, ICIS, August 4. (Accessed February 11, 2021, at https://www.icis.com/explore/resources/news/2017/08/04/10131193/algeria-s-aoa-to-restart-urea-plant-after-nearly-six-months.)
Tosyali Algérie Fer et Acier, 2020, Corporate—History: Oran, Algeria, Tosyali Algérie Fer et Acier. (Accessed February 18, 2021, at https://www.tosyali-algerie.com/en/corporate/history.)
Tosyali Holding, 2021, Our investment—Abroad: Istanbul, Turkey, Tosyali Holding. (Accessed June 24, 2021, at https://www.tosyaliholding.com.tr/en/corporate/our-investments/abroad.)
Total Energies, 2018, Production starts up at Timimoun gas field in Algeria: Paris, France, Total Energies, March 29. (Accessed January 8, 2021, at https://www.total.com/en/media/news/press-releases/production-starts-timimoun-gas-field-algeria.)
United Nations Conference on Trade and Development, 2020, World investment report 2020: Geneva, Switzerland, United Nations Conference on Trade and Development, 247 p. (Accessed April 11, 2022, at https://unctad.org/system/files/official-document/wir2020_en.pdf.)
U.S. Census Bureau, 2022a, U.S. exports to Algeria by 5-digit end-use code 2010−2019: U.S. Census Bureau. (Accessed October 12, 2022, at https://www.census.gov/foreign-trade/statistics/product/enduse/exports/enduse_exports.xlsx.)
U.S. Census Bureau, 2022b, U.S. imports from Algeria by 5-digit end-use code 2010−2019: U.S. Census Bureau. (Accessed October 12, 2022, at https://www.census.gov/foreign-trade/statistics/product/enduse/imports/enduse_imports.xlsx.)
U.S. Energy Information Administration, 2019, Algeria: U.S. Energy Information Administration Country Analysis Brief, March 25, 7 p. (Accessed January 9, 2021, at https://www.eia.gov/beta/international/analysis.cfm?iso=DZA.)
World Oil, 2019, Petrofac awarded $1-billion EPC project in Algeria: World Oil, March 14. (Accessed February 26, 2021, at https://www.worldoil.com/news/2019/3/14/petrofac-awarded-1-billion-epc-project-in-algeria.)
World Steel Association, 2020a, 2020 world steel in figures: Brussels, Belgium, World Steel Association, 30 p. (Accessed February 6, 2021, at https://worldsteel.org/wp-content/uploads/2020-World-Steel-in-Figures.pdf.)
World Steel Association, 2020b, Steel statistical yearbook: Brussels, Belgium, World Steel Association, 42 p. (Accessed March 1, 2021, at https://worldsteel.org/wp-content/uploads/Steel-Statistical-Yearbook-2020-concise-version.pdf.)

TABLE 1

ALGERIA: PRODUCTION OF MINERAL COMMODITIES[1]

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

Commodity[2]		2015	2016	2017	2018	2019
METALS						
Gold, mine, Au content	kilograms	106	102	137	286	300 e
Iron ore, mine:						
Gross weight		944	826	497	706 r	777
Fe content		500	438	263 r	374 r	412
Iron and steel:						
Direct-reduced iron		--	--	--	100	1,500
Pig iron[e]		300	300	300	300	300
Raw steel		650	650	415	2,000 e	2,000 e
Silver, mine, Ag content	kilograms	20	20	20 e	50 e	40 e
Zinc:						
Mine, concentrate	metric tons	100	627	1,000 e	1,000 e	1,000 e
Alloys	do.	309	30 r	-- r	-- r	--
Smelter, primary	do.	7,086	3,101	1,472 r	2,045 r	543
INDUSTRIAL MINERALS						
Barite	metric tons	44,000	52,000	29,159 r	39,426 r	40,000 e
Cement, hydraulic		20,250	23,540	28,650	31,100	27,700 e
Clay:						
Bentonite	metric tons	34,400	37,100	35,600	36,000 e	36,700
Common clay	do.	12,390	13,000	13,000 e	15,000 e	15,000 e
Kaolin	do.	51,000	96,000	100,000 e	100,000 e	100,000 e
Diatomite	do.	2,350	2,500	2,500	2,500 e	2,500 e
Feldspar		155	168	168	170 e	170 e
Gypsum		1,770	2,200	2,500 e	2,500 e	2,500 e
Helium, liquids		419	356	538	469	500 e
Lime, hydraulic		24	45	50 e	200 r, e	200 e
Nitrogen, N content:						
Ammonia		1,770	1,320	984	2,235	2,200 e
Urea		760	902	633	1,596	1,400
Phosphate rock:						
Gross weight		1,289	1,275	1,112 r	1,204 r	1,338
P_2O_5 content[e]		380	375	330	340	390
Pumice and related materials, pozzolan		420	833	900 e	900 e	900 e
Salt, brine and sea		176	158	160 e	160 e	160 e
Sand and gravel, industrial, unspecified[e]		65	60	60	60	60
Stone, sand, and gravel, construction:						
Sand and gravel:						
Sand		2,840	3,000	2,700 e	3,000 e	3,000 e
Unspecified, aggregates, gravel[3]		21,000 r	18,800 r	17,700 r	16,400 r	15,000
Stone:						
Crushed:						
Dolomite	metric tons	22,000	22,000 e	30,000	50,000 r	50,000 e
Limestone, for cement		24,246	25,958	30,000 e	33,000 e	30,000 e
Marble, crushed marble rock		233	189	178	200 e	200 e
Dimension:						
Marble, block		3	5	4	4 e	4 e
Tuff		3,228	3,300	3,500 e	4,000 e	3,800 e
Other, size and shape unspecified, calcite		377	340	350 e	350 e	350 e
Sulfur, S content:						
Compounds, sulfuric acid		13	2	10 e	10 e	15 e
Byproduct, natural gas and petroleum		110	110	100 e	100 e	100 e

See footnotes at end of table.

TABLE 1—Continued

ALGERIA: PRODUCTION OF MINERAL COMMODITIES[1]

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

Commodity[2]		2015	2016	2017	2018	2019
MINERAL FUELS AND RELATED MATERIALS						
Methanol		102	102	91	66	89
Natural gas:						
Gross	million cubic meters	183,826	189,139	188,742	185,000 e	175,355
Dry basis	do.	83,041	93,152	96,600	97,500	90,349
Petroleum:						
Crude, including condensate	thousand 42-gallon barrels	470,850	480,340	469,755	459,170	452,235
Natural gas liquids	do.	97,820	95,265	92,710	91,980	90,155
Refinery:						
Bitumen	do.	1,000	1,214	1,214	1,415	877
Distillate fuel oil	do.	58,400	64,240	61,685	72,270	78,840
Gasoline:						
Normal	do.	9,719 r	9,955 r	10,235 r	9,981 r	9,728
Super	do.	10,121 r	8,871 r	8,600 r	6,520 r	4,956
Kerosene, including jet fuel	do.	11,680	12,775	13,140	11,680	12,045
Liquefied petroleum gas	do.	8,800	8,900	8,500 r	8,400 r	9,200
Lubricants	do.	810	840	690	600 r	700 e
Naphtha	do.	71,900	67,200	70,000 e	70,000	64,466
Residual fuel oil	do.	40,150	45,260	42,705	38,690	40,150
Total	do.	213,000 r	219,000 r	217,000 r	220,000 r	221,000

[e]Estimated. [r]Revised. do. Ditto. -- Zero.

[1]Table includes data available through December 11, 2020. 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.

[2]In addition to the commodities listed, secondary aluminum, secondary copper, secondary lead, caustic soda, fertilizer, fuller's earth, perlite, rhyolite, schist, steel products, and travertine may have been produced, but available information was inadequate to make reliable estimates of output.

[3]Public sector production only, all years converted from cubic meters by multiplying by 1.5.

TABLE 2
ALGERIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2019

(Metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Barite	Entreprise Nationale des Produits Miniers Non Ferreux et des Substances Utiles, S.p.A. (ENOF)]	Boucaid Mine, Tissemsilt Province Setif Province	NA
Do.	Société Nationale de la Baryte (ALBARYTE) S.p.A. [Sonatrach S.p.A, 51%, and EntrepriseNationale des Produits Miniers Non Ferreux et des Substances Utiles, S.p.A. (ENOF), 49%]	Draissa Mine, Bechar Province	200,000
Do.	Société des Mines de Baryte d'Algérie S.p.A. (SOMIBAR) [Entreprise Nationale des Produits Miniers Non Ferreux et des Substances Utiles, S.p.A. (ENOF)]	Amin Mimoun Mine, Khenchela Province	35,000
Do.	do.	Boucaid Mine, Tissemsilt Province	20,000
Do.	do.	Mellal Mine, Tlemcen Province	10,000
Do.	Société des Baryte SARL (SOBAR)	Mine at Chaabet Abou Fares, Tipaza Province	7,000
Cement:			
Portland	CILAS S.p.A. (Souarki Group, 51%, and LafargeHolcim Ltd., 49%)	Plant at Biskra, Biskra Province	2,700,000
Do.	Entreprise des Ciments et Dérivés d'Ech—Cheliff [Groupe Industriel des Ciments d'Algérie (GICA), 100%]	Plant at Oued Sly in Ech Cheliff Province	3,000,000
Do.	Lafarge Ciment de M'Sila (LafargeHolcim Ltd., 99.99%)	Plant in M'Sila Province	5,000,000
Do.	Lafarge Ciment d'Oggaz (LafargeHolcim Ltd., 99.99%)	Plant at Oggaz, Mascara Province	4,400,000
Do.	Société des Ciments Beni Saf [Groupe Industriel des Ciments d'Algérie (GICA), 65%, and Pharoan Group, 35%]	Plant at Beni Saf, Ain Temouchent Province	1,200,000
Do.	Société des Ciments d'Aïn-Touta [Groupe Industriel des Ciments d'Algérie (GICA), 100%]	Plant at Ain Touta, Batna Province Province	1,200,000
Do.	Société des Ciments d'Aïn-Kébira [Groupe Industriel des Ciments d'Algérie (GICA), 100%]	Plant at Ain El Kebira, Setif Province	3,000,000
Do.	Société des Ciments de Sigus [Groupe Industriel des Ciments d'Algérie (GICA), 100%]	Plant at Sigus, Oum El Bouaghi Province	3,000,000
Do.	Société des Ciments de Hadjar Soud [Groupe Industriel des Ciments d'Algérie (GICA), 65%, and Buzzi Unicem S.p.A., 35%]	Plant in Annaba Province	900,000
Do.	Société des Ciments de Hamma-Bouziane [Groupe Industriel des Ciments d'Algérie (GICA), 100%]	Plant at Hamma-Bouziane, Constantine Province	1,000,000
Do.	Société des Ciments de l'Algérois [Groupe Industriel des Ciments d'Algérie (GICA)]	Plant in Rais-Hamidou, Tipaza Province	450,000
Do.	Société Saoura Ciment de Bechar [Groupe Industriel des Ciments d'Algérie (GICA), 100%]	Plant at Ben Zireg, Bechar Province	1,000,000
Do.	Société des Ciments de la Mitidja [Groupe Industriel des Ciments d'Algérie (GICA), 65%, and LafargeHolcim Ltd. 35%]	Plant at Meftah, Blida Province	800,000
Do.	Société des Ciments Saïda [Groupe Industriel des Ciments d'Algérie (GICA), 100%]	Plant at Hassasna, Saida, Ain Temouchent Province	500,000
Do.	Société des Ciments de Sour El Ghozlane [Groupe Industriel des Ciments d'Algérie (GICA), 65%, and Buzzi Unicem S.p.A., 35%]	Plant at Sour El Ghozlane, Bouira Province	1,000,000
Do.	Société des Ciments de Tebessa [Groupe Industriel des Ciments d'Algé	Plant at El Ma Labiodh in Tebessa Province	500,000
Do.	Société des Ciments Zahana [Groupe Industriel des Ciments d'Algérie (GICA), 65%, and ASEC Cement, 35%]	Plant at Zahana, Mascara Province	2,700,000
White	Ciment Blanc d'Algerie S.p.A. (LafargeHolcim Ltd., 100%)	Plant at Oggaz, Mascara Province	550,000
Clay:			
Bentonite	Société des Bentonites d'Algérie S.p.A. (BENTAL) [Entreprise Nationale des Produits Miniers Non Ferreux et des Substances Utiles, S.p.A. (ENOF)]	Mine at Hammam Boughrara, Tlemcen Province	18,000
Do.	do.	Mine in M'Sila Province	17,000
Do.	Entreprise Nationale des Produits Miniers Non Ferreux et des Substances Utiles, S.p.A. (ENOF)	Plant in Mostaganem Province	20,000

See footnotes at end of table.

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

(Metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Clay:—Continued			
Common	199 Government-owned and private companies	Various locations throughout the country	15,000,000
Kaolin	SARL Faïenceries Algériennes	Mine at Adjerda, Jijel Province	95,000
Do.	Société des Kaolins d'Algérie S.p.A. (SOALKA) [Federal White Cement Ltd., 63%, and Entreprise Nationale des Produits Miniers Non Ferreux et des Substances Utiles S.p.A. (ENOF), 37%]	El Milia Mine, Jijel Province	50,000
Do.	do.	Jebel Debbagh Mine, Guelma Province	15,000
Coke	IMETAL S.p.A. (Government, 100%)	Plant at El Hadjar, Annaba Province	1,200,000
Copper, cathode	Société Algérienne du Zinc S.p.A. (ALZINC)	Plant at Ghazaouet, Tlemcen Province	30,000
Diatomite	Société des Diatomees d'Algérie S.p.A. (DIATAL) [Entreprise Nationale des Produits Miniers Non Ferreux et des Substances Utiles, S.p.A. (ENOF)]	Tahalait quarry, Bir El Djir, Oran Province	2,000
Dolomite	Société Algérienne des Granulats S.p.A. (ALGRAN)	Mine at Djebel Taioualet, Oum el Bouaghi Province	8,000
Feldspar	La Société des Feldspaths d'Algérie (SOFELD) [Entreprise des Nationale des Produits Miniers Non Ferreux et des Substances Utiles, S.p.A. (ENOF), 57%, and Entreprise de la Céramique Ouest, 43%]	Mine at Ain Barbar, Annaba Province	200,000
Do.	Tufeal SARL	Mine at Bouaita, Tizi Ouzou Province	83,000
Fertilizer:			
Compound, nitrogen-phosphate-potassium	Fertial S.p.A. (Grupo Villar Mir S.A.U., 66%, and Asmidal Group, 34%)	Petrochemical complex at Arzew, Oran Province	150,000
Nitrogenous:			
Ammonia	El Sharika El Djazairia El Omania lil Asmida S.p.A. (AOA) [Suhail Bahwan Group (Holding) L.L.C., 51%, and Sonatrach S.p.A., 49%]	Plant at Arzew, Oran Province	1,460,000
Do.	Fertial S.p.A. (Grupo Villar Mir S.A.U., 49%; Asmidal Group, 34%; ETRHB Haddad Group, 17%)	Petrochemical complex at Arzew, Oran Province	850,000
Do.	do.	Plant in Annaba Province	365,000
Do.	Sorfert Algerie S.p.A. (OCI N.V., 51%, and Sonatrach S.p.A., 49%)	Plant at Arzew Industrial Zone, Oran Province	1,600,000
Ammonium nitrate	Fertial S.p.A. (Grupo Villar Mir S.A.U., 49%; Asmidal Group, 34%; ETRHB Haddad Group, 17%)	Petrochemical complex at Arzew, Oran Province	580,000
Urea	El Sharika El Djazairia El Omania lil Asmida S.p.A. (AOA) [Suhail Bahwan Group (Holding) L.L.C., 51%, and Sonatrach S.p.A., 49%]	Plant at Arzew, Oran Province	2,555,000
Do.	Fertial S.p.A. (Grupo Villar Mir S.A.U., 49%; Asmidal Group, 34%; ETRHB Haddad Group, 17%)	Petrochemical complex at Arzew, Oran Province	400,000
Do.	Sorfert Algerie S.p.A. [Orascom Construction Industries, S.A.E. (OCI), 100%]	Plant at Arzew, Oran Province	1,260,000
Phosphatic	do.	do.	280,000
Do.	do.	Plant in Annaba Province	300,000
Gold, mine kilograms	Entreprise d'Exploitation des Mines d'Or S.p.A. (ENOR) (Sonatrach S.p.A., 100%)	Amesmessa and Tirek Mines, Tamanrasset Province	500
Gypsum	33 private sector units and 13 public sector units	Batna, Bejaia, Biskra, Bouira, Chlef, Ghardaia, Mascara, Medbea, Milla, M'Sila, O.El Bouaghi, Oran, Setif, and Tiara Mines	2,500,000

See footnotes at end of table.

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

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Helium	million cubic meters	Helios S.p.A. (Sonatrach Valorisation Hydrocarbonés, 51%, and Helaps S.A., 49%)	GL1Z and GL3Z complexes, Arzew, Oran Province	17
Do.	do.	Helison Production S.p.A. (Linde AG, 50%, and Sonatrach S.p.A., 50%)	GL1K and GNL2K complexes, Skikda Province	25
Iron and steel:				
Iron:				
Direct-reduced		Algerian Qatari Steel (AQS) [Qatar Steel International, 49%; IMETAL Group, 46%; Fonds National de l'Investissement (FNI), 5%]	Plant at Bellara Industrial Zone, Jijel Province	2,500,000
Do.		Tosyali du Fer et de l'Acier Algérie (Tosyali Algerie)	Plant at Bethioua, Oran Province	2,500,000
Ore		Société des Mines de Fer d'Algérie S.p.A. (SOMIFER)	Khanguet Mine, Tebessa Province	50,000
Do.		Société des Mines de Fer de l'Est (Manal S.p.A. 79%, and Sider S.p.A., 21%)	Ouenza Mine, Tebessa Province	1,200,000
Do.		do.	Boukhadra Mine, Tebessa Province	525,000
Do.		Société des Mines de Fer d'Algérie S.p.A. (SOMIFER)	Anini Mine, Setif Province	170,000
Do.		do.	Rouina Mine, Ain Defla Province	140,000
Steel:				
Products		Algerian Qatari Steel [Qatar Steel International, 49%; IMETAL Group, 46%; Fonds National de l'Investissement (FNI), 5%]	Mill at Bellara Industrial Zone, Jijel Province	600,000
Do.		EPE SIDER El Hadjar S.p.A. (IMETAL Group)	Cold-rolling mill at El Hadjar, Annaba Province	1,050,000
Do.		do.	Bar and wire rod mills at El Hadjar, Annaba Province	850,000
Do.		do.	Seamless tube mill at El Hadjar, Annaba Province	700,000
Do.		EPE ALFAPIPE S.p.A. (IMETAL Group)	Welded tube plants in Annaba and Ghardaia Provinces	200,000
Do.		EPE FONDAL S.p.A. (IMETAL Group)	Foundry plants at El Harrach, Algiers Province; Gambetta, Oran Province; Tiaret Province	12,500
Raw		Algerian Qatari Steel [Qatar Steel International, 49%; IMETAL Group, 46%; Fonds National de l'Investissement (FNI), 5%]	Bellara Industrial Zone, Jijel Province	600,000
Do.		IMETAL Group (Government, 100%)	Hot-strip mill at El Hadjar, Annaba Province	1,800,000
Do.		Tosyali du Fer et de l'Acier Algérie (Tosyali Algeria)	Mill at Bethioua, Oran Province	1,600,000
Lime		SODEPAC (ERCO Group)	Mine at Hassasna, Oran Province	93,000
Do.		Société de Chaux de l'Ouest	Mine in Oran Province	65,000
Do.		Unité Chaux de Chettaba (Société des Produits Dérivés de l'Est, 100%)	Mine at Djebel Chettaba, Constantine Province	11,000
Methanol		Société Nationale de Pétrochimie S.p.A. (Sonatrach S.p.A., 100%)	Complexe CP 1Z, Arzew, Oran Province	113,000
Natural gas:				
Crude	million cubic meters	Sonatrach S.p.A. (Government, 100%)	Numerous gasfields, including Adrar, Hamra, Hassi R'Mel, and Sbaa	45,000
Do.	do.	Compañía Española de Petróleos, S.A.U. (CEPSA), 39%; Sonatrach S.p.A., 36%; Anadarko Petroleum Corp., 9%; Eni S.p.A., 5%; Maersk Olie og Gas AS, 5%; and Talisman Algeria, 2%	Ourhoud oilfield, onshore, Ouargla Province	22,000
Do.	do.	Sonatrach S.p.A., 35%; BP p.l.c., 33.15%; Statoil ASA, 31.85%	Gour Mahmoud, In Salah, Garet el Befinat, and Hassi Moumene gasfields, onshore, District 3	6,900

See footnotes at end of table.

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

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Natural gas:—Continued				
Crude—Continued				
Do.	million cubic meters	Sonatrach S.p.A., 35%; Total S.A., 35%; Repsol S.A., 30%	Tin Fouye Tabankort gasfield, onshore, Ouargla Province	5,640
Do.	do.	Sonatrach S.p.A., 51%; Total S.A., 37.75%; Compañía Española de Petróleos, S.A.U. (CEPSA), 11.25%	Timimoun gasfield, onshore, Adrar Province	1,800
Do.	do.	Statoil ASA, 49.5%: BP Algeria, 46%; Sonatrach S.p.A., 4.5%	Hassi Farida, Hassi Ouan Abecheu, Hassi Ouan Taredert, Tiguentourine gasfields, onshore, Illizi Province	6,270
Do.	do.	do.	In Amenas natural gas proccessing plant, onshore, Illizi Province	6,270
Liquefied	do.	Société Nationale de Raffinage de Pétrole S.p.A. (NAFTEC)	RA1K refinery, Skikda Province	352,700
Do.	do.	do.	GL2Z complex, Azrew, Oran Province	17,820
Do.	do.	do.	GL1Z complex, Azrew, Oran Province	17,560
Do.	do.	do.	GL3Z complex, Azrew, Oran Province	5,576
Do.	do.	do.	GL1K complex, Skikda Province	6,942
Do.	do.	do.	GL2K complex, Arzew, Oran Province	2,992
Petroleum:				
Crude	42-gallon barrels per day	Sonatrach S.p.A. (Government, 100%)	About 50 oilfields, including Acheb West, Amassak/Tin-Yaguene, Draa Tamra, Edjeleh, El Borma, El Gassi, Gassi-Touil East, Guellala, Hassi Messaoud North and South, Ohanet North, Rhourde El Baguel, Tin-Fouye Tabankort, and Zarzaitine	1,700,000
Do.	do.	Sonatrach S.p.A., 25%; Anadarko Petroleum Corp., 25%; Lasmo Oil Ltd., 25%; Maersk Olie og Gas AS, 25%	Hassi Berkine oilfield, onshore, Sahara Desert	285,000
Do.	do.	Sonatrach S.p.A., 37.70%; Anadarko Petroleum Corp., 18.10%; ConocoPhillips Algeria, 16.90%; Eni Oil Algeria Ltd., Maersk Olie Algeriet, and Talisman Algeria, 9.10% each	El Merk oilfield, onshore, Ouargla Province	135,000
Refined	do.	Société Nationale de Raffinage de Pétrole S.p.A. (NAFTEC)	RA1K refinery, Skikda Province	355,300
Do.	do.	do.	RA1K refinery, Skikda Province (condensate)	122,200
Do.	do.	do.	RA1Z refinery, Arzew, Oran Province	80,800
Do.	do.	do.	RA1G refinery, El Harrach, Algiers	58,100
Do.	do.	do.	RHM refinery, Hassi Messaoud, Ouargla Province	21,500
Do.	do.	China National Petroleum Corp. (CNPC), 70%, and Société Nationale de Raffinage de Pétrole S.p.A. (NAFTEC), 30%	Refinery at Adrar, Adrar Province	12,900
Phosphate rock		Société des Mines de Phosphates S.p.A. (SOMIPHOS) (Ferphos Group S.p.A)	Mine at Djebel Onk (Djemidjema and Kef Essenoun), Tebessa Province	1,600,000
Pumice, pozzolan		Entreprise Nationale de Fer et de Phosphate (Ferphos Group S.p.A.)	Mine at Beni Saf, Ain Temouchent Province	600,000
Do.		Société des Pouzzolanes et des Matériaux de Construction S.p.A.	Mine at Rockbet El Hassi	452,000
Salt, crude:				
Rock		Enterprise Nationale d'Exploitation des Carrières de Sels Industriels et Domestiques et Commercialisation des Sels (ENASEL) S.p.A.	Mine at El Outaya, Biskra Province	30,000

See footnotes at end of table.

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

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Salt, crude:–Continued				
Sea		Enterprise Nationale d'Exploitation des Carrières de Sels Industriels et Domestiques et Commercialisation des Sels (ENASEL) S.p.A.	Brines at Bethioua, Oran Province; El Meghaier, El Oued Province; Guergour Lamri, Setif Province; Ouled Zouai, Oum El Bouaghi Province; Sidi Bouziane, Relizane Province	400,000
Do.		Al Mallahate SARL	Brine at Chott Marouane Hamraia, El Oued Province	40,000
Silver, mine	kilograms	Entreprise d'Exploitation des Mines d'Or S.p.A. (ENOR) (Sonatrach S.p.A., 100%)	Amesmessa and Tirek Mines, Tamanrasset Province	100
Stone:				
Limestone		IMETAL Group	Quarries at Oued N'hal	250,000
Marble:				
Blocks	cubic meters	Entreprise Nationale du Marbre S.p.A. (ENAMARBRE)	Quarries in Oran and Skikda Provinces	70,000
Do.	do.	SMS Bouhouita SARL	Quarries in Skikda Province	160
Crushed		Commercialisation du Marbre et de Dérivés de Marbre S.p.A. and Entreprise Nationale du Marbre S.p.A.	Quarries in Chlef, Oran, Skikda, Tizi Ou and Tlemcen Provinces	17,000
Tuff		Six Government-owned companies and 59 private companies	Mines at Ain Temouchent, Tipaza, Tiare	2,500,000
Do.		CITIC Construction Co. Ltd.	Mines at Annaba, Boumerdes, Sidi Bel Abbes, Mascara, Mostaganem, Oran, Relizane Provinces	1,000,000
Unspecified		Société Algérienne des Granulats S.p.A. (ALGRAN) [Entreprise Nationale des Produits Miniers Non Ferreux et des Substances Utiles S.p.A. (ENOF)]	Aggregate quarries at Adrad, Oufarnou, Arzew, Ghedir, Gustar, Keddara, Oued Fodda, Teioueit, and Timezrit	3,000,000
Do.		Société des Diatomites d'Algérie S.p.A. (DIATAL) [Entreprise Nationale des Produits Miniers Non Ferreux et des Substances Utiles S.p.A. (ENOF)]	Oggaz limestone quarry, near Sig	12,500
Do.		Société des Bentonites d'Algérie S.p.A. (BENTAL) [Entreprise Nationale des Produits Miniers Non Ferreux et des Substances Utiles S.p.A. (ENOF)]	Limestone quarries near Beni Saf and M'Said	12,000
Sulfuric acid		Société Algérienne du Zinc S.p.A. (ALZINC)	Plant at Ghazaouet, Tlemcen Province	70,000
Do.		Fertial S.p.A. (Grupo Villar Mir S.A.U., 66%, and Asmidal Group, 34%)	Plants in Annaba and Oran Provinces	50,000
Zinc:				
Mine		Entreprise Nationale des Produits Miniers Non Ferreux et des Substances Utiles, S.p.A. (ENOF)]	Kherzet Youcef Mine, Ain Azal, Setif Province	2,500
Smelter		Société Algérienne du Zinc S.p.A. (ALZINC)	Plant at Ghazaouet, Tlemcen Province	10,000

Do., do. Ditto. NA Not available.