USGS
science for a changing world

2016 Minerals Yearbook

TUNISIA

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

December 2021

The Mineral Industry of Tunisia

By Mowafa Taib

The mineral industry of Tunisia included the mining of barite, gypsum, iron ore, phosphate rock, and salt, and the manufacturing of cement, phosphate-based fertilizers, and such chemicals as aluminum fluoride. The country also produced crude petroleum, natural gas, and refined petroleum products. In 2016, Tunisia supplied the world with aluminum fluoride, cement, crude petroleum, phosphate-based fertilizers, phosphate rock, refined petroleum products, and salt. The country imported ammonia, coal, and sulfur for processing of fertilizers and phosphoric acid; crude petroleum for refining; fluorite for aluminum fluoride manufacturing; and iron and steel products for the construction and industry sectors (National Institute of Statistics, 2017b, p. 17−19).

Minerals in the National Economy

The real gross domestic product of Tunisia increased by 1.0% in 2016 compared with a revised increase of 1.1% in 2015. The real value-added growth of the building materials, ceramic, and glass industries was −1.1% in 2016 compared with −0.8% in 2015. In 2016, 4,800 jobs were added in the energy and mining sector compared with a loss of 6,500 jobs in 2015 (Central Bank of Tunisia, 2017, p. 28−30, 36).

Data from the United Nations Conference on Trade and Development indicated that foreign direct investment (FDI) flows into Tunisia decreased by 4.4% to $958 million in 2016 from about $1.0 billion in 2015. The decrease in the FDI inflows in recent years was attributed to continued social unrest in the country during 2014 and 2015, which made potential international investors uncertain about safety, security, and stability in the country. In 2016, 47% of FDI went to the energy sector compared with 54% in 2013 (revised). The share of FDI in the machinery, metallic, and metallurgical industries was 10%, and that of the building materials industry was 4%. Tunisia enacted a new investment law that removed profit taxes on major investment projects for 10 years and gave foreign investors more flexibility to transfer funds out of the country (Central Bank of Tunisia, 2017, p. 65; United Nations Conference on Trade and Development, 2017, p. 101, 222).

Government Policies and Programs

Tunisia's mining code (law No. 2003–30 of April 28, 2003) regulates mining activities in the country, including prospecting, exploration, and production. Mines are state-owned properties in Tunisia, and they are regulated by the Office National des Mines (ONM) [National Office of Mines], which also conducts geologic research, prepares geologic and geophysical maps, and promotes the private ownership of mines. The mining code sets a tax rate of 25% on profits from mining operations but includes a 5-year tax holiday that starts at the beginning of mine production (National Office of Mines, 2014).

As of yearend, 117 valid mining permits had been issued by the Ministry of Industry, Energy and Mines—64 exploration permits and 53 mining permits. Exploration permits covered a total area of 1,823 square kilometers (km^2) in 2016 compared with 1,040 km^2 in 2015; they included 31 permits for salt; 15 for barite, iron ore, lead, and zinc; 12 for gypsum; and 6 for phosphate rock. Valid mining permits included 27 for gypsum, 12 for salt, 5 for iron ore, 4 for barite, 3 for phosphate rock, and 1 each for bentonite and calcium carbonate (Sharif, 2016, p. 454−455).

Crude petroleum and natural gas production is governed by the hydrocarbons code (law No. 9 of September 14, 1985, and law No. 99–93 of August 17, 1999) and its amendments. Law No. 2002–23 of February 2002 promoted hydrocarbon production and modified the hydrocarbons code. The hydrocarbons code allows 1 year for prospecting, a maximum of 5 years for exploration, and 30 years for production. The law reduces the corporate income tax rate to 50% from 75% if the state petroleum company of Tunisia—Entreprise Tunisienne d'Activités Pétrolières (ETAP)—holds a 40% or more share of the concession (Entreprise Tunisienne d'Activités Pétrolières, 2003, p. 15, 31, 60–61; Gaied, 2012, p. 9).

Production

Notable increases in Tunisia's production of mineral commodities in 2016 compared with that of 2015 included the increase in the production of compound fertilizers, by 329%; hyperphosphate, by 283%; white spirits, by 234%; raw steel, by 84%; diammonium phosphate, by 54%; triple superphosphate, by 47%, ammonium nitrate, by 38%; hot-rolled steel products, by 35%; white cement, by 27%; gasoline, by 21%; phosphoric acid, by 26%; and phosphate rock, by 13%. Notable production decreases included that of lime, by 33%; naphtha, by 26%; sodium tripolyphosphate, by 22%; and natural gas, by 11%. Data on mineral production are in table 1.

Structure of the Mineral Industry

Government-owned Compagnie des Phosphates de Gafsa (CPG) carried out all phosphate mining and fertilizer manufacturing activities in Tunisia. Group Chimique Tunisien (GCT), which had merged with CPG in 1996, produced phosphate-based fertilizers. Tunisian Indian Fertilizers S.A. (TIFERT) was a joint venture of CPG and GCT (35% interest each) and Coromandel International Ltd. and Gujarat State Fertilisers and Chemicals Ltd. (both of India, 15% interest each). Except for the Government-owned Société des Ciment d'Oum el Kélil, all Tunisia's cement production was carried out by private companies. The companies included domestic as well as Italian, Portuguese, Saudi Arabian, and Spanish companies. State-owned Société Tunisienne de Sidérurgie [Tunisian Steel Manufacturing Co.], which was also known as El-Fouladh, was the sole steel billet producer in the country. Privately owned

steel mills produced rebar. Table 2 is a list of major mineral commodity production facilities (Ministry of Industry, Energy and Mines, 2017).

Mineral Trade

In 2016, the value of Tunisia's exports decreased to $13.6 billion from $14.1 billion in 2015 and the value of imports also decreased to $19.5 billion in 2016 from $20.2 billion in 2015. The value of crude petroleum exports decreased by 11% in 2016 compared with that of 2015 owing to the decrease in the volume of crude petroleum exports. The value of diammonium phosphate and phosphoric acid exports increased by 74% and 55%, respectively, in 2016 compared with those of 2015. European countries, such as France, Germany, Italy, and the United Kingdom, were the main destinations of Tunisia's mineral exports. Libya was a major recipient of Tunisia's exports, such as cement. Mineral commodity imports included ammonia, crude petroleum and refined petroleum products, fluorspar, steel products, and sulfur. The origins of Tunisia's imports were mainly France, Germany, Italy, Libya, and Russia (National Institute of Statistics, 2017a, p. 229−231; African Development Bank, 2018, p. 362).

In 2016, Tunisia imported about 1.0 million metric tons (Mt) of finished and semifinished steel products compared with 1.1 Mt in 2015. Steel imports included 358,000 metric tons (t) of ingots and semifinished steel products and 265,000 t of flat, 343,000 t of long, and 31,000 t of tubular steel products (World Steel Association, 2017, p. 57, 62, 67, 72, 77).

In 2016, the value of Tunisia's exports to the United States decreased to $392 million from $546 million in 2015. Major mineral commodity exports included fuel petroleum ($11.3 million), petroleum products ($9.9 million), iron and steel products ($9.8 million), bauxite and aluminum ($2.6 million), inorganic chemicals ($1.6 million), and stone (about $1.1 million). Tunisia's imports from the United States decreased to $527 million in 2016 from $602 million in 2015. Mineral imports from the United States included petroleum products ($38.7 million), fuel petroleum ($29.5 million), chemicals ($18.1 million), aluminum and alumina ($4.6 million), and iron and steel products ($2.6 million) (U.S. Census Bureau, 2017a, b).

Commodity Review

Metals

Lead and Zinc.—The Government announced a plan to restart lead and zinc mining in the country, which stopped in 2006. Six mines were expected to begin production in northern Tunisia by 2021. Lead and zinc deposits are located at the areas of Bou Jaber and Kbouch (Le Kef Governorate), Bou Kaheel (Siliana Governorate), Fej Lehdoum (Beja-Siliana Governorates), Sidi Idris (Beja Governorate), and Wadi Al Gyps (Jendouba Governorate). The Bou Jaber barite-fluorite-lead-zinc deposit was being developed by European Industrial and Base Metals Co. and the ONM. Mineral resources at the Bou Jaber deposit were estimated to be about 2.4 Mt grading 1.26% lead and 5.77% zinc. The Bou Jaber Mine was expected to begin production in 2019 and to have the capacity to produce 3,000 metric tons per year (t/yr) of lead and 23,000 t/yr of zinc. The Fej Lehdoum lead-zinc project, which was being developed by North Africa Mining and Minerals Co. and the ONM, was expected to begin production in 2018 and to have the capacity to produce 12,500 t/yr of lead and 23,000 t/yr of zinc. Mineral resources at the Fej Lehdoum deposit were estimated to be 4.6 Mt grading 3.84% lead and 4.06% zinc. Société d'Exploitation Minière (SEM) was developing lead and zinc mines at the Bou Kaheel and the Kbouch deposits and was expected to begin production in 2017. Mineral resources at the Bou Kaheel deposit were estimated to be 1.55 Mt grading 1.4% lead and 5.3% zinc; those at the Kbouch deposit were 3.4 Mt grading 6.2% lead and zinc. Tunisian Mining Services S.A.R.L. (TMS) was expected to commission lead and zinc production at the Sidi Idris and the Wadi Al Gyps areas in 2018. The production capacity at these mines was estimated to be 6,000 t/yr of lead and 7,000 t/yr of zinc, respectively. The Government expected that the combined production capacity of the six lead-and-zinc mining projects to be 120,000 t/yr of lead and 70,000 t/yr of zinc (Sharif, 2016, p. 458).

Industrial Minerals

Gypsum.—Gypsum production decreased to 850,000 t in 2016 from 900,000 t in 2015. The output of gypsum had been steadily increasing in recent years; production had increased between 2013 and 2015. The increase was attributed to increased demand by cement plants and the plasterboard industry and the commissioning of a new 100,000-t/yr mine in Gafsa. Production was expected to increase further to 1.1 million metric tons per year (Mt/yr) and 1.3 Mt/yr in 2017 and 2020, respectively. Société Knauf les Plâtres (a subsidiary of Knaul Gips KG of Germany) was constructing a new 180,000-t/yr-capacity gypsum plant in Tataouine Governorate; the plant was expected to start production in 2018. Similarly, La Chimique de Tunisie Co. was expected to begin gypsum production in Tataouine Governorate at a 60,000-t/yr-capacity plant in 2018 (table 1; Sharif, 2016, p. 459).

Phosphate Rock.—Tunisia's phosphate rock production increased to 3.6 Mt in 2016 from about 3.2 Mt in 2015. The country's output of phosphate rock, however, had not recovered and was still significantly less than the pre-2011 level of 8 Mt/yr. The decline in phosphate output, when compared with the level of production in 2011, was attributed to workers' strikes, and local residents' protests. Almost all of phosphate rock output in 2016 was sold domestically to the GCT and TIFERT fertilizer manufacturing plants to meet previously contracted delivery targets of phosphate-based fertilizer and phosphoric acid.

In 2016, the Government was focused on increasing phosphate rock output to 10 Mt by 2019 and up to 15 Mt by 2021 through expansion projects at existing mines in the Metlaoui district in Gafsa Governorate and through the development of new mines in Le Kef Governorate. The Government also planned to revive the development of the Sra Ouertane phosphate rock mining and phosphate-based-fertilizer manufacturing project through a public-private partnership. The project is located in Le Kef Governorate in northwestern Tunisia. Proven reserves at the project area were estimated to be more than 1 billion metric

tons of low-grade (14%) P_2O_5 (Ministry of Industry, Energy, and Small and Medium Enterprises, 2008, p. 59−60, 70; Tunisia News Gazette, 2015).

Salt.—The Ministry of Energy and Mines expected that the country's production of sodium chloride would increase steadily to 2.4 Mt by 2020 from 1.6 Mt in 2016. In 2016, Tataouine Salt Co. produced 100,000 t/yr of sodium sulfate for the first time in Tunisia. Production of such other sea salts as magnesium sulfate and potassium chloride was also expected to reach 30,000 t/yr and 10,000 t/yr, respectively by 2020. Salt exports, which went mainly to Europe, decreased to 862,200 t in 2016 from about 1.66 Mt in 2015. Local consumption of marine salt averaged 175,000 t/yr (Sharif, 2016, p. 459; National Institute of Statistics, 2017a, p. 230),

Mineral Fuels

Natural Gas and Petroleum.—Tunisia's output of crude petroleum and natural gas decreased in 2016 compared with that of 2015. Crude petroleum and natural gas production by ETAP and international petroleum companies working in Tunisia had been trending downward since 2009 owing to lower reserves. In 2016, ETAP produced 80% of the crude petroleum (and condensate) and about 67% of the natural gas produced in Tunisia. The output of other companies was in steep decline. Beside ETAP, a number of international, regional, and local companies carried out exploration and production activities in the country. The number of valid hydrocarbon exploration licenses decreased to 26 in 2016 from 31 in 2015. The number of exploration wells decreased to three in 2016 from five in 2015, and the number of wells in the development stage decreased to zero in 2016 from two in 2015. The country had 52 crude petroleum and natural gas concessions, including 36 in operation and 10 in the development and evaluation phase; 6 were idle. ETAP had shares in 26 of the 36 concessions in operation. In 2015, Tunisia had 306 wells in operation, of which 247 were petroleum fields, 5 were gasfields, and the remainder was mixed petroleum and gas fields (table 1; Entreprise Tunisienne d'Activités Pétrolières, 2017, p. 13, 55, 56, 127).

Outlook

International and regional investors are likely to remain interested in Tunisia's energy and mining sector owing to the country's proximity to Europe, its long history in mining, and its capability to produce and export mineral commodities. The Government is focused on increasing phosphate rock production during the next 5 years by extending mining in the Gafsa Governorate and developing new mines in the Le Kef Governorate. Output of barite, bentonite, cement, gypsum, phosphate rock and phosphate-based fertilizer, and salt is likely to increase during the next 5 years. Tunisia is expected to restart lead and zinc mining at Bou Jaber and the Kbouch area in Le Kef Governorate and the Bou Kaheel deposit in Siliana Governorate during the next 5 years.

References Cited

African Development Bank, 2018, African statistical yearbook: African Development Bank, p. 360–364. (Accessed July 23, 2019, at https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/African_Statistical_Yearbook_2018.pdf.)

Central Bank of Tunisia, 2017, Annual report 2016: Central Bank of Tunisia, June, 226 p. (Accessed March 1, 2018, at https://www.bct.gov.tn/bct/siteprod/documents/RA_2016_en.pdf.)

Entreprise Tunisienne d'Activités Pétrolières, 2003, Legal publication—Hydrocarbons code under law: Entreprise Tunisienne d'Activités Pétrolières, July, 85 p. (Accessed August 15, 2016, at http://www.etap.com.tn/uploads/telechargement/code_hydrocarbures.pdf.)

Entreprise Tunisienne d'Activités Pétrolières, 2017, Rapport annuel 2016: Entreprise Tunisienne d'Activités Pétrolières, 130 p. (Accessed December 15, 2017, at http://www.etap.com.tn/rapports/RapportAnnuel/fr/files/res/downloads/RapportAnnuel2016.pdf.)

Gaied, Sofiane, 2012, Overview of petroleum fiscal landscape in Tunisia: Tunisia Oil and Gas Summit, September, 15 p. (Accessed October 16, 2018, at. http://www.tunisiaoilandgas.com/togs-2012/presentation/?upf=dl&id=2510.)

Ministry of Industry, Energy and Mines, 2017, Compagnie des Phosphate de Gafsa: Ministry of Industry, Energy and Mines. (Accessed September 9, 2017, at http://www.cpg.com.tn/En/home_46_42.)

Ministry of Industry, Energy, and Small and Medium Enterprises, 2008, Sra Ourantane project mine process & chemical transformation: Ministry of Industry, Energy, and Small and Medium Enterprises, 120 p. (Accessed March 5, 2018, at http://www.industrie.gov.tn/fr/sraouertane/download/SRA-OUERTANE%20TENDER%20DOCUMENT.pdf.)

National Institute of Statistics [Tunisia], 2017a, Annuaire statistique de la Tunisie 2012−2016: National Institute of Statistics [Tunisia], 363 p. (Accessed December 3, 2017, at http://www.ins.tn/sites/default/files/publication/pdf/Annuaire%202016%20SITE.pdf.)

National Institute of Statistics [Tunisia], 2017b, Bulletin Mensuel de Statistique: National Institute of Statistics [Tunisia], 54 p. (Accessed March 5, 2018, at http://www.ins.tn/sites/default/files/publication/pdf/bms%20octobre%202017.pdf.)

National Office of Mines, 2014, Mining code: National Office of Mines [Tunisia]. (Accessed September 12, 2014, at http://www.onm.nat.tn/en/index.php?p=codeminier.)

Sharif, Najah, 2016, Nonphosphate mining sector in Tunisia—Status and outlook, *in* Abstracts of the 15th Arab International Mineral Resources Conference, Jeddah, Saudi Arabia, November 22−24: Arab Industrial Development and Mining Organization, 622 p.

Tunisia News Gazette, 2015, Study on phosphate extraction project in Sra Ouertane to be developed soon: [Tunis] Tunisia News Gazette, May 28. (Accessed March 5, 2018, at https://tunisianewsgazette.com/%EF%BB%BFstudy-on-phosphate-extraction-project-in-sra-ouertane-to-be-developed-soon.)

United Nations Conference on Trade and Development, 2017, World investment report 2016: United Nations Conference on Trade and Development, 237 p. (Accessed March 5, 2018, at http://unctad.org/en/PublicationsLibrary/wir2017_en.pdf.)

U.S. Census Bureau, 2017a, U.S. exports to Tunisia by 5-digit end-use code 2007-2016: U.S. Census Bureau. (Accessed September 8, 2017, at https://www.census.gov/foreign-trade/statistics/product/enduse/exports/c7230.html.)

U.S. Census Bureau, 2017b, U.S. imports from Tunisia by 5-digit end-use code 2007-2016: U.S. Census Bureau. (Accessed September 8, 2017, at https://www.census.gov/foreign-trade/statistics/product/enduse/imports/c7230.html.)

World Steel Association, 2017, Steel statistics yearbook 2017: Brussels, Belgium, World Steel Association, 123 p. (Accessed December 19, 2017, at http://www.worldsteel.org/en/dam/jcr:37ad1117-fefc-4df3-b84f-6295478ae460/Steel+Statistical+Yearbook+2017.pdf.)

TABLE 1

TUNISIA: PRODUCTION OF MINERAL COMMODITIES[1]

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

Commodity[2]		2012	2013	2014	2015	2016
METALS						
Iron and steel:						
Raw steel		109	109	101	50	92
Products, hot-rolled		380	380	498	500	673
Iron ore, mine production:						
Gross weight		223	244	307	300	300 e
Fe content		117	127	160	156	156 e
INDUSTRIAL MINERALS						
Barite, crude		11 r	5 r	10	10	10 e
Cement:						
Hydraulic		7,241	7,504	9,127 r	9,516 r	9,028
Portland		6,785	6,964	8,676 r	9,098 r	8,495
White		456	540	451 r	418 r	532
Fertilizers:						
Compound fertilizers		46	13	23	7 r	30
Diammonium phosphate		666	824	584	370 r	570
Dicalcium phosphate		57	46	55	67 r	64
Hyperphosphate		14	16	8	6 r	23
Sodium tripolyphosphate		116	127	101	87 r	68
Triple super phosphate		494	518	482	262 r	385
Fluorspar, products, aluminum fluoride		38	38	36	37	40
Gypsum		776	632	850	900	850
Lime		340	293	253	308 r	206
Nitrogen, products, ammonium nitrate		182 r	140	185	155 r	214
Phosphate rock:						
Gross weight		2,762	3,283	3,784	3,240	3,662
P_2O_5 content		829	985	1,135	972	1,100
Phosphoric acid		777	750	619	476 r	600
Salt, sea		1,132	1,146	888	1,700 r	1,600 e
Sulfur compounds, sulfuric acid		3,200	3,200	3,200	3,000	3,000 e
MINERAL FUELS AND RELATED MATERIALS						
Natural gas:						
Gross weight	million cubic meters	3,300	3,300	3,000	2,700 r	2,400 e
Dry basis	do.	2,873	2,860	2,585	2,475 r	2,213
Petroleum:						
Crude	thousand 42-gallon barrels	24,455	22,265	19,345	17,874	17,800
Refinery production:						
Distillate fuel oil	do.	4,930 r	3,676 r	4,715 r	3,770 r	3,581
Gasoline	do.	225	275	255	202	245
Liquefied petroleum gas	do.	1,267	1,253	1,230	1,123	1,141
Naphthas	do.	3,058	2,969	2,927	2,857	2,122
Paraffin oil	do.	291	290	459	423	420
Residual fuel oil	do.	3,825 r	3,664 r	3,115 r	2,870 r	2,693
White spirits	do.	153	194	153	128	428
Total	do.	13,700 r	12,300 r	12,900 r	11,400 r	10,600

eEstimated. rRevised. do. Ditto.

[1]Table includes data available through February 23, 2018. 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, clay, sand and gravel, tile, and stone may have been produced in Tunisia, but available information was inadequate to make reliable estimates of output.

Source: National Institute of Statistics (Tunisia).

TABLE 2
TUNISIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2016

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Aluminum fluoride		Industries Chimiques du Fluor (ICF)	Gabes	42
Barite		NA	Redeyef	10
Cement:				
Portland		Carthage Cement S.A. (Société Bina Corp., 50.24%; public stocks; 35.64%, Riha Group, 8.96%; Naifer Group, 5.16%)	Djebel Ressas	2,200
Do.		Société des Ciment d'Enfidha (Cementos Portland Valderrivas, S.A., 88%)	Enfidha	2,100
Do.		Société des Ciment de Jbel Oust (Cimentos de Portugal SGPS, S.A., 100%)	Jbel Oust	1,800
Do.		Société des Ciment de Gabès (Secil-Companhia Geral de Cal e Cimento, S.A., 100%)	Gabes	1,300
Do.		Société des Ciments Artificiels Tunisiens (Colacem S.p.A., 100%)	Ben Arous	1,000
Do.		Société des Ciment d'Oum el Kélil (Government, 100%)	Le Kef	1,200
Do.		Les Ciment de Bizerte	Bizerte	1,500
White		Société Tuniso-Andalouse de Ciment Blanc S.A. (Sotacib) (Grupo Prasa, 100%)	Feriana	1,400
Gypsum		Société Knauf les Plâtres (Knauf Gips KG)	Maknassy	800
Do.		Industries Chimiques du Fluor (ICF)	Gabes	100
Do.		Ali Ben Hassine Bou Allagui	Jebel Rkaiz El Beidha, Gafsa	100
Iron and steel:				
Iron ore		Société de Djebel Djerissa (Government, 91%)	Djerissa Mine	100
Do.		do.	Tamera-Douaria Mine	50
Steel, crude		Société Tunisienne de Sidérurgie (El-Fouladh) (Government, 91%)	El Fouladh	200
Steel, rolled, bar and rod		Intermetal S.A. (private, 100%)	Ben Arous	300
Do.		Tunisacier Steelworks (private, 100%)	Bizerte	100
Lime, hydraulic		Les Ciment de Bizerte	do.	70
Natural gas	million cubic meters	BG Group plc, 100%	Miskar field	523
Do.	do.	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 50%, and Perenco Ltd., 50%	Franig field	90,673
Do.	do.	Eni Tunisia B.V., 50%, and Entreprise Tunisienne d'Activités Pétrolières (ETAP), 50%	Oued Zar-Hammouda field	36,718
Do.	do.	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 50%; Eni Tunisia B.V., 25%; Pioneer Natural Resources Co., 20%; Talisman Energy Inc., 5%	Adam field	279,309
Do.	do.	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 55%, and Petrofac Ltd., 45%	Chergui field	82,590
Do.	do.	Eni Tunisia B.V., 50%, and Entreprise Tunisienne d'Activités Pétrolières (ETAP), 50%	Djebel Grouz field	7,754
Do.	do.	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 50%, and Perenco Ltd., 50%	Baguel-Tarfa field	58,417
Do.	do.	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 55%, and Winstar Resources Ltd., 45%	Sabria field	24,309
Do.	do.	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 50%, and British Gas Tunisia Ltd., 50%	Hasdrubal field	774,562
Do.	do.	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 51%, and Eni Tunisia B.V., 49%	Baraka field	51,239
Do.	do.	do.	Maamoura field	44,352
Do.	do.	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 50%, and OMV A.G., 50%)	Chourouq field	4,568
Nitrogen, ammonium nitrate		Group Chimique Tunisien (GCT) (Government, 100%)	Ghannouch, near Gabes	330
Petroleum:				
Crude	thousand 42-gallon barrels	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 50%; Eni Tunisia B.V., 25%; Pioneer Natural Resources Co., 20%; Talisman Energy Inc., 5%	Adam field	1, 547
Do.	do.	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 51%, and Eni Tunisia B.V., 49%	Baraka field	522
Do.	do.	PA Resources A.B., 100%	Didon field	140
Do.	do.	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 50%, and Société de Recherches et d'Exploitation des Pétroles en Tunisie (SEREPT), 50%	Ashtart field	2,113
Do.	do.	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 51%, and Eni Tunisia B.V., 49%)	El Hajeb-Guebiba field	863

See footnotes at end of table.

TABLE 2—Continued
TUNISIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2016

(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	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 50%, and OMV A.G., 50%)	Chorouq field	924
Do.	do.	do.	Anguid East field	475
Do.	do.	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 51%, and Perenco Ltd., 49%	Franig and Baguel-Tarfa fields	60
Do.	do.	Ecumed Petroleum Corp., 75%, and Entreprise Tunisienne d'Activités Pétrolières (ETAP), 25%,	Al Manzah field	720
Do.	do.	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 51%, and Thyna Petroleum Services S.A., 49%	Cercina field	312
Do.	do.	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 55%, and Tuniso-Kuwaitian Company of Petroleum, 45%	Sidi El Kilani field	270
Do.	do.	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 55%, and Société MARETAP S.A., 45%	Ezzouia field	170
Do.	do.	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 51%, and Thyna Petroleum Services S.A., 49%	El Ain-Gremda field	128
Do.	do.	Candax Energy Inc.and Ecumed Petroleum Corp., 74%, and PA Resources A.B., 24%	El Bibane field	350
Do.	do.	PA Resources A.B., 70%, and Société de Recherches et d'Exploitation des Pétroles en Tunisie (SEREPT), 30%	Douleb-Semmama field	94
Do.	do.	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 55%, and Serinus Energy, 45%	Sabria field	375
Do.	do.	Eni Tunisia B.V., 50%, and Entreprise Tunisienne d'Activités Pétrolières (ETAP), 50%	Djebel Grouz field	92
Do.	do.	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 51%, and Eni Tunisia B.V., 49%	Maamoura field	287
Do.	do.	Eni Tunisia B.V., 50%, and Entreprise Tunisienne d'Activités Pétrolières (ETAP), 50%	Oud Zar-Hammouda field	986
Do.	do.	Entreprise Tunisienne d'Activités Pétrolières (ETAP), 51%, and Circle Oil Plc, 49%	Mazrane field	1
Do.	do.	Petrofac Ltd., 55%, and Entreprise Tunisienne d'Activités Pétrolières (ETAP), 45%	Cherqui field	35
Do.	do.	Serinus Energy, 100%	Chouech Essaida field	1,213
Do.	do.	do.	Sanrhar field	100
Do.	do.	do.	Ech-chouech field	39
Do.	do.	Canadax Energy Inc., 80%	Robbana field	7
Refined	do.	Société Tunisienne des Industries du Raffinage (Government, 100%)	Bizerte	12,775
Phosphate compunds:				
Diammonium phosphate		do.	Ghannouch, near Gabes	1,300
Do.		do.	Sfax	330
Phosphate rock		Compagnie des Phosphates de Gafsa (CPG) (Government, 100%)	Kef Eddour Mine	1,500
Do.		do.	Kef Eschfaier Mine	2,300
Do.		do.	Jallabia mining center	1,300
Do.		do.	Metlaoui, Mzida, Redeyef, and Uom El Araies Mines	2,600
Phosphoric acid		Group Chimique Tunisien (GCT) (Government, 100%)	Ghannouch, near Gabes	470
Do.		do.	Skhira	375
Do.		do.	M'dhilla	183
Do.		do.	Sfax	131
Do.		Tunisian Indian Fertilizers S.A. (TIFERT) [Compagnie des Phosphates de Gafsa (CPG), 35%; Group Chimique Tunisien (GCT), 35%; Coromandel International Ltd., 15%; Gujarat State Fertilizers and Chemical Ltd., 15%]	Skhira	360
Sodium tripolyphosphate		Société Chimique (ALKIMIA) (Group Chimique Tunisien (GCT), 39.1%; IMER Co., 22.12%; Driss Group, 17.05%; Carte Insurance., 9.77%; Societe Tunisienne d'Engrais Chimiques S.A, 7.23%; others, 4.73%)	Gabes	200
Triple superphosphate		Group Chimique Tunisien (GCT) (Government, 100%)	M'dhilla	465

See footnotes at end of table.

TABLE 2—Continued
TUNISIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2016

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Salt	Compagnie Générale des Salines de Tunisie (COTUSAL)	Sfax and Zarzis	900
Do.	TUNISEL S.A.	Sabkhet Laadhibet	1,000
Do.	SAIDA S.A.	Sebkhet Sidi El Heni	250
Sulfuric acid	Group Chimique Tunisien (GCT) (Government, 100%)	Gabes, M'dhilla, Sfax, Skhira	4,800
Do.	Tunisian Indian Fertilizers S.A. (TIFERT) [Compagnie des Phosphates de Gafsa (CPG), 35%; Group Chimique Tunisien (GCT), 35%; Coromandel International Ltd., 15%; Gujarat State Fertilizers and Chemical Ltd., 15%]	Skhira	3,600
Do.	Industries Chimiques du Fluor (ICF)	Gabes	100

Do., do. Ditto. NA Not available.