



2019 Minerals Yearbook

LIBYA [ADVANCE RELEASE]

THE MINERAL INDUSTRY OF LIBYA

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Libya produced and exported ammonia, crude petroleum, iron and steel products, methanol, natural gas, refined petroleum products, salt, sulfur, and urea in 2019. Libya was the world's 10th-ranked country in terms of the volume of its crude petroleum reserves of 48.4 billion barrels, which accounted for 5.7% of the proven reserves in the Middle East and North Africa and 2.8% of the world's proven reserves. By the end of 2019, Libya held 1.4 trillion cubic meters of natural gas reserves, which accounted for 1.6% of the reserves in the Middle East and North Africa and 0.7% of the world's total. Libya was the Middle East and North Africa's 8th-ranked producer of crude petroleum and the 11th-ranked producer of natural gas. Other mineral commodities produced in Libya included cement, direct-reduced iron (DRI), gypsum, and lime (table 1; BP p.l.c., 2020, p. 14, 16, 32, 34).

In 2019, Libya's real gross domestic product (GDP) increased by 4.0% compared with an increase of 17.9% in 2018. The country's nominal GDP was estimated to be \$33.0 billion in 2019 compared with \$41.1 billion in 2018. The large fluctuations in the country's GDP in recent years were attributed mainly to interruptions in crude petroleum and natural gas production and exports as a result of the armed conflict and civil unrest between the Government of the National Accord in Tripoli and the Libyan National Army in Benghazi as well as to the changes in crude petroleum prices on the world market (Organization of the Petroleum Exporting Countries, 2020, p. 10, 17; U.S. Central Intelligence Agency, 2020).

Minerals in the National Economy

Libya's economy continued to be heavily dependent on the hydrocarbon sector in 2019. The mining sector, which encompassed the production of crude petroleum, natural gas, and refined petroleum products, and quarrying and mining, contributed 57% of the GDP in 2014 (the latest year for which comprehensive information was available). The value of petroleum exports accounted for about 94% of the country's total export value. The revenue generated by crude petroleum, natural gas, and petroleum products accounted for 55% of total Government revenue in 2019 compared with 68% in 2018. The contribution of nonfuel mining and quarrying sector activities to the country's GDP was insignificant (less than 1% of the GDP) and mainly included the production of industrial minerals (Central Bank of Libya, 2020, p. 52, 59; Organization of the Petroleum Exporting Countries, 2020, p. 10, 18).

The value of Libya's total exports decreased to \$25.7 billion in 2019 from \$29.8 billion in 2018. The value of the country's petroleum exports decreased to \$24.2 billion in 2019 from \$25.4 billion in 2018. Libya's crude petroleum exports went to the regions of Europe (67%), Asia and the Pacific (26%), North America (6%), and Africa and Latin America combined (1%). The volume of crude petroleum exports increased to more than 1.0 million barrels per day (Mbb/d) in 2019

from 998,500 barrels per day (bbl/d) in 2018. In 2019, the Organization of the Petroleum Exporting Countries (OPEC) reference basket spot price for Libya's Es Sider crude was \$63.81 compared with \$69.78 in 2018. In 2019, the volume of natural gas exports increased by 114% to 9.1 billion cubic meters from 4.2 billion cubic meters in 2018. Libya exported 64% of its natural gas production in 2019 compared with 31% in 2018, and the remaining 36% was used domestically for power generation. All natural gas exports went to Italy by way of the GreenStream pipeline; this 540-kilometer (km)-long pipeline was used to transport natural gas from the Mellitah gas and oil terminal on the Mediterranean Sea to Gela on the island of Sicily in Italy and had the capacity to discharge 11 billion cubic meters per year (GreenStream BV, 2019; Organization of the Petroleum Exporting Countries, 2020, p. 17, 18, 47, 48, 66, 80).

In 2019, Libya's total exports to the United States increased in value to \$1.5 billion from \$1.4 billion in 2018. Crude petroleum exports to the United States increased in value to \$1.4 billion in 2019 from \$1.3 billion in 2018, and fuel oil exports increased in value to \$93 million from \$46 million. Libya's imports from the United States increased in value to \$412 million in 2019 from \$244 million in 2018. Mineral-related categories included excavation machinery (\$3.9 million), other petroleum products (\$2.0 million), iron and steel products and oilfield drilling equipment (\$1.3 million each), chemical fertilizer (\$245,000), and fuel oil (\$150,000) (U.S. Census Bureau, 2020a, b).

Production

Raw steel production increased by 53% in 2019 compared with that in 2018 (revised), although it continued to be much less than the Libyan Iron and Steel Co. (Lisco)'s combined capacity of 1.75 million metric tons per year (Mt/yr). DRI output by Lisco increased by 44% in 2019 compared with that in 2018. Production of crude petroleum increased by 29% compared with that in 2018. The output of gasoline decreased by 18%; that of distilled fuel oil, by 17%; liquefied petroleum gas and residual fuel oil, by 14% each; and naphtha, by 10%. Kerosene (including jet fuel) production increased by 8%, and that of other refined products increased by 900%. The increase in crude petroleum production was attributed to better security measures around the oilfields and to fewer interruptions in production owing to the ongoing armed conflict in Libya in 2019 compared with in previous years (table 1).

Salt production was estimated to have increased by 100% in 2019 compared with that of 2018 owing to the beginning of operations by Reefal W.L.L. Co. Lime output was estimated to have increased by 50% in 2019 compared with that of 2018 owing to the increase in raw steel production, as lime is used to eliminate impurities from slag during the manufacturing of steel (table 1; Reefal W. L.L. Co., 2020).

Ammonia and urea production were estimated to have decreased by 44% and 17%, respectively, owing to the halt in

production at Libyan Norwegian Fertilizer Co. (Lifeco) in the first half of 2019 as a result of a dispute between Lifeco and National Oil Corp. (NOC) over natural gas supply (table 1; Libyan Norwegian Fertilizer Co., 2020).

Structure of the Mineral Industry

The Government was the sole owner of the hydrocarbon sector companies and a partial owner of chemical and fertilizer plants. Ownership of cement plants was mixed. The state-owned NOC comprised 10 petroleum and petroleum-related services subsidiaries, as follows: Arabian Gulf Oil Co., Azzawiya Oil Refining Co., Brega Petroleum Marketing Co., Jwofe Oil Technology, National Oil Wells Drilling and Workover Co., North Africa Geophysical Exploration Co., Ras Lanuf Oil and Gas Processing Co., Sirte Oil Co., Taknia Libya Engineering Co., and Zollaf Libya Oil and Gas Co. (National Oil Corp., 2020).

The NOC was also a partner in nine joint-venture companies operating in Libya; they were Akakus Oil Operations A.G., with Repsol YPF S.A. of Spain; Harouge Oil Operations Co., with Petro-Canada (a subsidiary of Suncor Energy Inc. of Canada); Libyan Emirati Refining Co., with TRASTA Energy of the United Arab Emirates; Lifeco, with Yara International ASA of Norway; Mabruk Oil Operations, with Total E&P Libye (a subsidiary of Total S.A. of France); Mellitah Oil and Gas B.V., with Eni S.p.A.; Nafousah Oil Operation Co. B.V., with Medco International Ventures Ltd. of Indonesia; Waha Oil Co., with ConocoPhillips Co., Hess Corp., and Marathon Oil Corp. of the United States; and Zueitina Oil Co., with OMV A.G. of Austria (table 2; Arabian Gulf Oil Co., 2020; Harouge Oil Operations Co., 2020; National Oil Corp., 2020; Sirte Oil Co., 2020; Zollaf Libya Oil and Gas Co., 2020).

In 2019, eight international oil companies were working in Libya under exploration and production-sharing agreements that they had signed with the NOC. These companies were, in alphabetical order of their country of registration, Sonatrach S.p.A. of Algeria; China National Petroleum Corp. of China; Total E&P Libye (a subsidiary of Total S.A. of France); Oil India Ltd. of India; Eni North Africa B.V. (a subsidiary of Eni S.p.A. of Italy); Repsol Murzuq SA. of Spain; and Amerada Hess Libya Exploration Ltd. (a subsidiary of Hess Corporation of the United States). Wintershall Dea GmbH was the only international oil company that held its own concessions in Libya since 2008. In 2019, NOC and Wintershall converted Concessions 96 and 97 to exploration and production-sharing agreements (table 2; National Oil Corp., 2020; Wintershall Dea AG, 2020).

Commodity Review

Metals

Iron and Steel.—Lisco was the country's sole steelmaker and one of the top steelmaking companies in North Africa. The company produced DRI, raw steel, and finished and semifinished steel products at its plants in Misuratah (Misrata), which is located on the Mediterranean coast in northwestern Libya. Lisco had the capacity to produce 1.75 Mt/yr of raw steel. In 2013, the company began an expansion project to

increase its capacity to produce finished steel products to 2.4 Mt/yr from 1.5 Mt/yr. The project, which was originally expected to be completed in April 2015, was put on hold because of the armed conflict in the country and electricity shortages. In 2019, Lisco also produced 880,000 metric tons (t) of DRI, which was a 44% increase compared with the 612,000 t that company produced in 2018. The company also produced 606,000 t of raw steel, which was a 53% increase compared with the 396,000 t produced in 2018. In 2019, Libya imported 393,000 t of finished and semifinished steel products compared with 383,000 t in 2018 and 136,000 t in 2017 (World Steel Association, 2019, p. 13; 2020, p. 2, 13, 19; Libyan Iron and Steel Co., 2020).

Industrial Minerals

Cement and Gypsum.—Libya's cement output was estimated to have decreased to 4.2 million metric tons (Mt) in 2019 from 4.5 Mt in 2018. The decrease in production to levels of about one-half of the country's production capacity of 8.1 Mt/yr was attributed to the military and political conflict in the country during 2018 and 2019. Libya imported on average 1.5 Mt/yr of cement, mainly from Tunisia, to meet domestic demand. The main cement producers in Libya were Ahlia Cement Co., Arab Union Contracting Co., and Libyan Cement Co. (LCC). Ahlia Cement operated cement plants at Al Marqub, Lubda, Souk Al-Khamis, and Zliten, in western Libya, which had a total (combined) capacity of 4.5 Mt/yr. Ahlia Cement also produced gypsum, and it had the capacity to produce 1 Mt/yr at its quarries in Ghadames and 9,000 metric tons per year (t/yr) of gypsum at its quarries in Souk Al-Khamis (table 2; International Cement Review, 2019; Ahlia Cement Co., 2020).

The Al Burj cement plant in Zliten, which is located 150 km east of Tripoli, was operated by Arab Union Contracting Co. The 3-Mt/yr-capacity cement plant covers an area of 84 hectares and had access to gypsum, limestone, and high-grade limestone quarries. LCC was the leading cement producer in eastern Libya in terms of capacity; it had six production lines in three plants, two of which were located in Benghazi and the third one was located in Derna; the three plants had a combined capacity of 2.4 Mt/yr of cement. The company planned to produce 1.7 Mt of cement in 2020 by operating four out of its six production lines and to increase its capacity to 3.0 Mt/yr (table 2; Arab Union Contracting Co., 2020; Libyan Cement Co., 2020).

Nitrogen.—Lifeco was the sole producer of ammonia and urea in Libya in 2019. The company resumed production in July following a 6-month stoppage in production that was owing to a lack of natural gas supply by NOC as a result of a dispute over debt payment. Lifeco was a 50–50 joint venture of NOC and Yara International ASA of Norway; it planned to produce 700,000 t of ammonia and 900,000 t of urea in 2020 from its two plants at Mersa al Brega (Zaptia, 2019; Libyan Norwegian Fertilizer Co., 2020).

Salt.—Reefal W.L.L. Co. started operations in 2018 in Misuratah to extract and process sea salt using solar energy. The company had the capacity to produce 2.5 Mt/yr of salt as well as its own shipping terminal, which had a loading capacity of 7,000 metric tons per day. The other major producer of salt in Libya was the state-owned General Company for Chemical Industries, which was located west of Tripoli at Kammash and

had the capacity to produce 120,000 t/yr of salt. The company extracted its salt from Sabkhet Twelat Ghazala, which is located on the border with Tunisia (table 2; Reefal W.L.L. Co., 2020).

Mineral Fuels

Petroleum.—Libya's crude petroleum output as reported by OPEC, increased to about 1.1 Mbbbl/d in 2019 from 951,000 bbl/d in 2018. The number of wells completed during the year, including development and exploration wells, increased to 115 wells in 2019 from 35 wells in 2018. Libya had 16 active oil rigs in 2019 compared with 9 rigs in 2018. The companies that produced crude petroleum in Libya in 2018 (the latest year for which data were available) included Waha Oil Co., which produced 97.8 million barrels (Mbbbl); followed by Akakus Oil Operations, 97.0 Mbbbl; Arab Gulf Oil Co., 89.0 Mbbbl; Mellitah Oil Co., 56.2 Mbbbl; Sirte Oil Co., 20.7 Mbbbl; Wintershall, 16.3 Mbbbl; Mabruk Oil Operations, 10.9 Mbbbl; Harouge Oil Operations Co., 10.5 Mbbbl; and Zueitina Oil Co., 5.9 Mbbbl (BP p.l.c. 2020, p. 16; Central Bank of Libya, 2020, p. 81; Organization of the Petroleum Exporting Countries, 2020, p. 23–26).

In 2018, BP p.l.c. announced that it was going to resume petroleum exploration at the onshore Ghadames Basin and offshore in the Gulf of Sirte, which had been stopped in 2014. The project was planned as an exploration and production-sharing agreement between BP (42.5%), Eni (operator, 42.5%), and NOC (15%). In 2019, BP and Eni postponed exploration works at the project until further notice for security reasons. In 2019, NOC and Total signed an agreement with the Government to develop hydrocarbon resources at the Waha concession in the Sirte Basin, which is located in north-central Libya. The Waha concessions included the NC 98 and Northern Gialo fields, which had the capacity to produce 180,000 bbl/d of oil equivalent. Total acquired Marathon Oil Libya Ltd.'s share (16.333%) in the other six Waha concessions, which had the capacity to produce 350,000 bbl/d of oil equivalent (Oil and Gas Journal, 2018; Petroleum Economist, 2019; Total S.A., 2019).

Libya had several petroleum exporting ports and refineries. Ports included Marsa Al Hariga in the east; Es Sidr (Sidra), Marsa al Brega, and Ras Lanuf in the central east; and Farwah (Al-urf), Mellitah, and Zawiya in the west. The refineries were located at Az Zawiya, Marsa al Brega, Mellitah, Ras Lanuf, Sarir, and Tobruk; their combined (total) capacity was 380,000 bbl/d. Libya's refinery throughput in 2019 was 98,000 bbl/d, which was slightly less than the amount in 2018 of 99,000 bbl/d (table 2; Organization of the Petroleum Exporting Countries, 2020, p. 33, 35).

Outlook

The military and political unrest in Libya, which began in 2011 and intensified in 2019, delayed the start of several mineral development and exploration projects in the country, including petroleum exploration at the Ghadames Basin and the Gulf of Sirte, and Lisco's raw steel plant expansion. Industrial minerals development projects for cement plants and mining projects for diatomite, gypsum, kaolin, marble, and silica sand, which previously were identified in several parts of the country,

were also on hold. Production of such mineral commodities as ammonia, cement, crude petroleum, DRI, gypsum, iron and steel, natural gas, and refined petroleum products is likely to increase once the armed conflict is ended and rule of law and security is restored throughout the country.

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TABLE 1
LIBYA: PRODUCTION OF MINERAL COMMODITIES¹

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

Commodity ^{2,3}	2015	2016	2017	2018	2019
METALS					
Iron and steel:					
Direct-reduced iron	450	700	562	612	880
Steel, raw steel	389	538	485	396 ^r	606
INDUSTRIAL MINERALS					
Cement, hydraulic	5,000	4,100 ^r	4,500 ^r	4,500 ^{r,e}	4,200 ^e
Gypsum ^e	250 ^r	210 ^r	225 ^r	225 ^r	210
Lime ^{e,4}	190	270	240	220	330
Nitrogen, N content:					
Ammonia	266	219	205	177 ^r	100 ^e
Urea	157	112	118	120	100 ^e
Salt ^e	30	30	40	50	100
Sulfur, byproduct, natural gas and petroleum, S content	150 ^e	135 ^e	133	135 ^e	135 ^e
MINERAL FUELS AND RELATED MATERIALS⁵					
Methanol	208	160	130	130 ^e	130 ^e
Natural gas:					
Gross					million cubic meters
	22,309	22,065	24,513	24,167 ^r	25,000 ^e
Dry basis	18,677	18,258	18,810	13,880	14,190
Petroleum:					
Crude	146,600	137,900	320,800	347,188	447,855
Refinery:					
Distillate fuel oil	do.	7,483	6,839	9,936	6,570
Gasoline	do.	4,072	3,395	3,992	3,585
Kerosene, including jet fuel	do.	2,847	1,786	3,768	3,285
Liquefied petroleum gas	do.	840	349	340 ^e	350 ^e
Naphtha	do.	4,583	4,406	5,667	5,550 ^e
Residual fuel oil	do.	11,963	12,349	11,359	8,030
Other	do.	3,513	3,787	7,665	365
Total	do.	35,300	32,900	42,700	27,700

^eEstimated. ^rRevised. do. Ditto.

¹Table includes data available through August 13, 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.

²In addition to the commodities listed, asphalt, clay, dolomite, limestone, natron (soda ash), sand, and crushed construction stone may have been produced, but available information was inadequate to make reliable estimates of output.

³Natural gas liquids also were produced but were blended with crude petroleum and reported as part of that total.

⁴May include dolomite.

⁵Source: Central Bank of Libya, for 2015–2018; Organization of the Oil Exporting Countries, for 2019.

TABLE 2
LIBYA: 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
Asphalt		Azzawiya Oil Refining Co. [National Oil Corp. (NOC), 100%]	Plants at Az Zawiya and Benghazi	200
Cement		Libyan Cement Co. Inc. (LCC) (Libya Holdings Group Ltd., 90%, and plant employees, 10%)	Two plants at Benghazi-Hawari	1,400
Do.		do.	Plant at El Fataih, Derna	1,000
Do.		Arab Union Contracting Co.	Al Burj cement plant, Zliten, Al Marqab District	3,000
Do.		Ahlia Cement Co. (National Investment Co., 65.39%; Economic and Social Development Fund, 24.12%; limited income families, 8.58%; others, 1.91%)	Plant at Lubda, Suq al Khamis District	1,000
Do.		do.	Plant at Zliten, El Margueb District	1,000
Do.		do.	Plant at El Margueb, Al Khums	1,000
Do.		do.	Plant at Leptis, Al Marqab District	330
Dolomite and lime		do.	Plant in Suq al Khamis District	200
Do.		Libyan Iron and Steel Co. (Lisco) (Government, 100%)	Sedada Quarry, east of Misuratah	88
Gypsum		Ahlia Cement Co. (National Investment Co., 65.39%; Economic and Social Development Fund, 24.12%; limited income families, 8.58%; others, 1.91%)	Quarries at Ghadames	1,000
Do.		do.	Quarries in Suq al Khamis District	9
Do.		Arab Union Contracting Co.	Plant and quarry at Zliten	35
Iron and steel:				
Iron:				
Direct-reduced (sponge iron)		Libyan Iron and Steel Co. (Lisco) (Government, 100%)	Plant at Misuratah	1,100
Hot-briquetted iron		do.	do.	650
Steel:				
Raw		do.	do.	1,750
Rolled:				
Bar and rod		do.	do.	800
Cold-rolled strip		do.	do.	140
Hot-rolled strip		do.	do.	580
Galvanized coils		do.	do.	80
Painted coils		do.	do.	40
Methanol		Sirte Oil Co. [National Oil Corp. (NOC), 100%]	Plant at Marsa al Brega	680
Natural gas:				
Dry	million cubic meters	Arabian Gulf Oil Co. [National Oil Corp. (NOC), 100%]	Fields include the Beida, the Brega (Naffoura/Augila complex), the Hamada	1,137
Do.	do.	Mellitah Oil and Gas B.V. [National Oil Corp. (NOC), 50%, and Eni S.p.A., 50%]	Plant at Mellitah for Sabratha Platform, offshore	10,195
Do.	do.	Waha Oil Co. [National Oil Corp. (NOC), 59.2%, and ConocoPhillips Co., Marathon Oil Corp., and Hess Corp., 40.8%]	Oilfields include the Dahra, the Gialo, the Samah, and the Waha	NA
Do.	do.	Sirte Oil Co. [National Oil Corp. (NOC), 100%]	The Al Hatibh, the Al Iradal, the Al Istiklal, the Al Muqbel, the Asurah, and the Shimal Al Rashad oilfields	1,300
Do.	do.	Zueitina Oil Co., [National Oil Corp. (NOC), 88%, and OMV A.G., 12%]	Oilfields include the Al Fedaa, the Al Hakeem, the Al Sabah, the Intisar Complex, NC-74, the Zella, the Magid, and the Sarir	181
Liquefied		Mersa el Brega LNG (Sirte Oil Co.)	Plant at Marsa al Brega, ¹ Al Wahat Governorate	3,200
Nitrogen:				
Ammonia		Libyan Norwegian Fertilizer Co. (Lifeco) [Yara International ASA, 50%; National Oil Corp. (NOC), 25%; Libyan Investment Authority, 25%]	do.	700

See footnotes at end of table.

TABLE 2—Continued
LIBYA: 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				
Urea		Libyan Norwegian Fertilizer Co. (Lifeco) [Yara International ASA, 50%; National Oil Corp. (NOC), 25%; Libyan Investment Authority, 25%]	Plant at Marsa al Brega	900
Petroleum:				
Crude	thousand 42-gallon barrels	Akakus Oil Operations A.G. [National Oil Corp. (NOC), 88%, and OMV A.G., Repsol YPF S.A., and Total S.A., 12%]	El Sharara (NC-115 and NC-186 oilfields), and the Zawiya oilfields	75,200
Do.	do.	Arabian Gulf Oil Co. [National Oil Corp. (NOC), 100%]	Oilfields include the Beida, the Brega (Naffoura), the Hamada, the Magid, the Messla, the Sarir, and the Sinoun	138,000
Do.	do.	Harouge Oil Operations Co. [National Oil Corp. (NOC), 88%, and Petro-Canada, 12%]	Oilfields include the Amal, the En Naga, the Farigh (Area 107), the Ghani, the Jorfra, and Tibisti	12,200
Do.	do.	Mabruk Oil Operations [National Oil Corp. (NOC), 73%; Total S.A., 20.25%; Wintershall Holding GmbH, 6.75%]	Al-Jurf (offshore) and Mabruk oilfields	11,100
Do.	do.	Mellitah Oil Co. [National Oil Corp. (NOC), 85%, and Eni S.p.A., 15%]	Oilfields include the Bhar Essalam, the Bouri (offshore), the Abu Attifel, the El Feel, the NC-118, the Rimal, and the Wafa	44,500
Do.	do.	Sirte Oil Co. [National Oil Corp. (NOC), 100%]	Oilfields include the Al Laheeb, the Al Jebel, the Raguba, the Al Ralh, the Al Rashed, the Mellitah, the Al Wadi, and the Zliten	31,400
Do.	do.	Waha Oil Co. [National Oil Corp. (NOC), 59.2%; Conoco Phillips Co., 16.3%; Marathon Oil Corp., 16.3%; Ameralxa Hess Corp., 8.2%]	Oilfields include the Dahra, the Gialo, the Samah, and the Waha	52,000
Do.	do.	Joint venture of National Oil Corp. (NOC), 51%, and Wintershall Holding GmbH, 49%	Oilfields include the As-Sarah, the Hamid, the Jakhira b (C96), the Nakhla (C97)	11,600
Do.	do.	Zueitina Oil Co., [National Oil Corp. (NOC), 88%, and OMV A.G., 12%]	Oilfields include the Al Fidaa/Hakeem, the Intisar (103A, 103D), the 29C, the Sabah, and the Zella	4,400
Refined	do.	Arabian Gulf Oil Co. [National Oil Corp. (NOC), 100%]	Refinery at Tobruk	7,300
Do.	do.	Azzawiya Oil Refining Co. [National Oil Corp. (NOC), 100%]	Refinery at Az Zawiya	43,800
Do.	do.	do.	Refinery at Sarir	3,650
Do.	do.	Ras Lanuf Oil and Gas Processing Co. [National Oil Corp. (NOC), 100%]	Refinery at Ras Lanuf	80,300
Do.	do.	Sirte Oil Co. [National Oil Corp. (NOC), 100%]	Refinery at Marsa al Brega	2,920
Salt		General Company for Chemical Industries (Government, 100%)	Plant at Abu Kammash, An Nuqat Al Khams District	120
Do.	do.	do.	Brines at Sabkhet Twelat Ghazala	200
Do.		Reefal W.L.L. Co.	Brines at Misuratah	2,500
Do.		Small-scale private miners	Brine at Sabkhet Karkourah, Benghazi	NA
Sulfur		Mellitah Oil and Gas B.V. [National Oil Corp. (NOC), 60%, and Eni S.p.A., 40%]	Mellitah Oil and Gas Complex, Sabratha	450

Do., do. Ditto. NA Not available.

¹Liquefied natural gas production was suspended since 2011.