



2012 Minerals Yearbook

MAURITANIA

THE MINERAL INDUSTRY OF MAURITANIA

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Mauritania, which occupies an area of more than 1 million square kilometers (km²) in northwest Africa, was a significant source of copper, gold, and iron ore in 2012. The country's geology includes the following five major units: The Reguibat shield in the north, which includes Archean rocks and the Paleoproterozoic Birrimian succession that hosts major iron ore and gold deposits; the Mauritanides belt in the south-central region, which trends northwest to southeast along the West African craton and holds the Guelb Moghrein copper-gold deposit; the coastal basin, which has Paleozoic to Cenozoic sedimentary formations and hosts phosphate rock and petroleum deposits; the Taoudeni basin in the east-central region, which is one of the largest Proterozoic to Paleozoic sedimentary formations in Africa and contains base-metal mineralization; and the Tindouf sedimentary basin. In 2012, Mauritania was the second-ranked exporter and producer of iron ore in Africa after South Africa; it was the world's 12th- and 17th-ranked exporter and producer of iron ore, respectively. In addition to iron ore, Mauritania produced cement, copper, crude oil, gold, gypsum, quartz, salt, and steel (table 1; Tuck, 2013; U.S. Central Intelligence Agency, 2013; World Steel Association, 2013, p. 98–99; Mauritanian Office for Geological Exploration, undated).

Minerals in the National Economy

In 2012, the Mauritanian gross domestic product (GDP) increased in real terms (1998 prices) by 6.9% to about \$3.6 billion. The economic rate of growth of 6.9% in 2012 was nearly double the revised rate of growth of 3.6% in 2011. The contribution of mining sector activity, which included production of copper, crude oil, gold, and iron ore, decreased to 30.4% of the GDP in 2012 from 36.9% of the GDP in 2011 because of the decrease in copper and iron ore prices in international markets as well as the decrease in the volume of crude oil produced. Metal sector activity accounted for 26.5% of the GDP, and included iron ore (14.9%), gold (8.7%), and copper (2.8%). The contribution of the petroleum sector decreased to 3.9% of the GDP from 4.4% of the GDP in 2011. In 2012, gold exports increased by 6.8% to \$445 million from \$417 million in 2011, and crude oil exports increased by about 22.9% to \$271.2 million from \$220.7 million in 2011. Iron ore exports, which accounted for 42.8% of the country's total exports by value in 2012, decreased by about 23% to \$1,131 million from \$1,471 million in 2011, and copper exports decreased by about 4.2% to \$238 million from \$248 million in 2011. About 57% of Mauritania's exports of goods went to Asia, including China (44%), Japan (9%), and other countries in Asia (4%). Mauritania's exports to Europe, which accounted for 43% of total exports, went mainly to France, Germany, Italy, and Spain (Banque Centrale de Mauritanie, 2013, p. 29–30, 99–101; Office National de la Statistique, 2013, p. 91).

The flow of foreign direct investment (FDI) to Mauritania surged significantly to a historic level in 2012. The value of FDI was estimated to have increased by 104% to \$1,204 million in 2012 from \$589 million in 2011. Most of the increase in FDI was because of the increase in spending on mining expansion projects by First Quantum Minerals and Kinross Gold Corp., both of Canada (United Nations Conference on Trade and Development, 2013, p. 40, 213).

Government Policies and Programs

The Ministère du Pétrole et de l'Énergie et des Mines [Ministry of Petroleum, Energy, and Mining] is the Government agency responsible for regulating mineral industry activity. The Direction des Mines et de la Géologie [Department of Mines and Geology] implements the Government policies to enhance foreign investment in the mining sector of Mauritania. The Code Minier [Mining Law] awards exploration permits on a “first come, first served” basis for a 3-year period; the permits can be renewed twice for up to 3 years each time. Mining licenses are awarded for a 30-year period and are renewable for up to 10 additional years. The law exempts mining companies from customs duties on exploration equipment during the first 5 years of production and permanently on fuel and spare parts. The tax code includes a 25% corporate income tax rate after the first 3 years of production (the first 3 years are tax exempt); a tax withholding rate of 14% on repatriated earnings; a 16% value-added tax; and royalties that range from 1.5% to 5%, depending on the value of the product. L'Unité du Cadastre Minier (the Mining Cadastre Unit) manages the exploration licensing and mining rights issuance process by offering four classes of permissions: reconnaissance licenses, 3-year exploration permits, small-scale mining permits, and 30-year mining licenses (Ministère du Pétrole et de l'Énergie et des Mines, 2014).

In 2011, the Government approved several amendments to the Hydrocarbon Code and the Mining Code. The revisions to the Mining Code changed the method by which royalties are calculated and the area of land that is assigned for exploration permits. Revisions to the mining law add a 10% tax on all mining transactions and make international commodity prices the basis for royalty calculation. The area of land allocated for each exploration permit is reduced to 500 km² from 1,000 km² for all minerals except for the areas allocated for diamond concessions, which remain at 5,000 km² (Marouf, 2011).

In November, Mauritania's first school of mining was officially inaugurated in Nouakchott. The school had several partners, including First Quantum Minerals Ltd., Kinross Gold Corp., Polytechnique Montreal (all of Canada), Société Nationale Industrielle et Minière (SNIM), and the World Bank. Mauritanian workers made up only 4% of mining sector employment in Mauritania—a small percentage compared with

the sector's contribution to the national economy, which was 30% of the GDP in 2012 (Tawary.com, 2011).

In December, Mauritania was declared an Extractive Industries Transparency Initiative (EITI)-compliant country after having implemented EITI processes, which are designed to promote economic transparency and accountability in the mining sector and improve living conditions in and around mining sites. The country had an established EITI national committee and a "publish what you pay" coalition chapter, which calls on mining companies to publish what they pay to the state (Coulibaly, 2013).

Production

Data on mineral production are in table 1. The data indicate that Mauritania's cement production increased by about 14% in 2012 compared with that of 2011, and iron ore output was slightly higher than that of 2011. Copper and gold production decreased in tonnage by 6% each compared with that of 2011 (table 1).

Structure of the Mineral Industry

With the exception of a few state-owned companies, all companies involved in mineral production in Mauritania were private and (or) publicly owned. Fifty companies held 170 mineral exploration and exploitation permits. SNIM was a majority state-owned mining company (78.35% interest) that contributed 53% of the country's total exports, 20% of the Government's revenue, and 35% of the GDP. SNIM operated iron ore mines at Guelb el Aouj, Guelb el Rhein, M'Haoudat, and Zouerate in northern Mauritania. SNIM also owned and operated a 700-kilometer (km) heavy-haul railway and a shipping terminal at Nouadhibou Port on the Atlantic Coast. Other companies that held iron ore exploration licenses in Mauritania included ArcelorMittal of Luxembourg, Minmetals Corp. of China, PT Bumi Resources Minerals Tbk of Indonesia, and Wadi Al Rawda Industrial Developments LLC of the United Arab Emirates (Société Nationale Industrielle et Minière, 2013).

Gold Tasiast Mauritanie Ltd. S.A. (a wholly owned subsidiary of Kinross) and Mauritanian Copper Mines S.A. (a wholly owned subsidiary of First Quantum) were responsible for the country's gold production in 2012. Mauritanian Copper Mines was the sole producer of copper, and Petroliam Nasional Berhad (Petronas) was the sole producer of crude oil. Two companies produced cement—Ciment de Mauritanie S.A. and Mauritano-Française des Ciments S.A. Salt was produced by Société Mauritanienne des Industries du Sel (SOMISEL) (table 2).

In 2012, several companies continued to explore for uranium in Mauritania. These companies included Agrineq S.A., Aura Energy Ltd., and Forte Energy NL (all of Australia), Alba Mineral Resources Plc. and Alecto Minerals Plc. (both of the United Kingdom), and Earthstone Resources Ltd. of Indonesia. Additionally, three domestic companies were engaged in uranium exploration—Lusitania Uranium Mauritania, Mauritania Resources Ltd., and Orecorp Mauritania S.A.R.L. The Government awarded an exploration license for titanium and zirconium in the northern El Abiod area to Mineralis S.A.R.L.

Commodity Review

Metals

Copper and Gold.—In 2012, the Guelb Moghrein Mine, which is located near the town of Akjoujt in the Inchiri district in western Mauritania, was the country's only copper mine in operation. The mine was owned and operated by Mauritanian Copper Mines (a wholly owned subsidiary of First Quantum Minerals Ltd.) and was the major copper mine in Mauritania. Mauritanian Copper Mines mined about 3.6 million metric tons (Mt) of ore, processed about 3.1 Mt of sulfide ore grading 1.3% copper, and produced about 37,670 metric tons (t) of copper in concentrate. The Guelb Moghrein Mine was an open pit mine that employed 1,472 people in 2012. As of yearend 2012, First Quantum estimated the total mineral reserve at the Guelb Moghrein Mine to be 29.2 Mt of ore at a cutoff grade of 1.09% copper and 0.79 gram per metric ton (g/t) gold. The company was exploring for copper in the vicinity of the mine to extend the mine's life and was improving copper recovery. The capacity of the mine was 3.8 million metric tons per year (Mt/yr) of ore and 41,000 metric tons per year (t/yr) of contained copper (First Quantum Minerals Ltd., 2013a, p. 23; 2013b).

Mauritanian Copper Mines produced 1,882 kilograms (kg) of gold at the Guelb Moghrein copper-gold mine compared with 1,951 kg in 2011. As of yearend 2012, mineral reserves at the Guelb Moghrein deposit were about 13.6 Mt of proven ore reserves grading 0.79 g/t gold for a total of 10,708 kg and 15.6 Mt of probable ore reserves grading 0.70 g/t gold for a total of 10,942 kg (First Quantum Minerals Ltd., 2013a, p. 23, b).

Kinross identified the Tasiast Gold Mine, which is located in northwestern Mauritania, as the focus of its operations in the country and conducted studies to expand the open pit mine operations. In 2012, the mine produced 5,764 kg of gold compared with 6,239 kg in 2011. As of yearend 2012, estimates of proven and probable mineral reserves at the Tasiast deposit were 149.6 Mt at a grade of 1.66 g/t gold for a total of 248,421 kg. The measured and indicated resources were estimated to be 226.1 Mt at a grade of 0.93 g/t gold for a total of 210,267 kg, and the inferred resources were about 31.2 Mt at a grade of 0.79 g/t gold for a total of 24,676 kg. Kinross carried out an intensive \$55 million exploration drilling program at the Tasiast area, which included additional infill drilling, and increased the number of drill rigs to 25 (Kinross Gold Corp., 2013, p. MDA27, 72, 75).

Gryphon Minerals Ltd. of Australia was exploring for copper and gold in three locations in Mauritania—the Akjoujt, the Saboussiri, and the Tijirit projects. The Akjoujt copper-gold project was wholly owned by Gryphon and covered an area of approximately 750 km² located 30 km west of the Guelb Moghrein copper-gold mine. The Guelb Moghrein mineralization was classified as an iron-oxide copper-gold deposit that had carbonate and magnetite alternation. Geophysical surveys for the Akjoujt project were carried out on the project area and targeted both copper and gold mineralization. The company proceeded with followup studies on the prospective anomalies that were identified by airborne gravity and aeromagnetic surveys. The Saboussiri gold-copper permit covers approximately 1,000 km² in the

southern Mauritanides near the border with Senegal. Gryphon held 60% interest in the project, and the remainder was held by an independent private third party. Gryphon identified several copper prospects on the project area, including a drill-ready copper and gold target at the Diaguili site and a strong gold anomaly at Toumbou. The company conducted additional geochemical, geographic, and geologic studies to help define drill targets in 2012. The Tijirit gold project is located in northwestern Mauritania in a gold district that includes the Tasiast gold deposit. The project, which was wholly owned by Gryphon, encompassed continuous exploration licenses covering an area of about 1,460 km². Gryphon conducted an exploration program, including airborne aeromagnetic studies, scope geologic and regolith interpretations and ground mapping, as well as a 10-hole diamond drill program. Consequently, the company generated its first gold targets for the project and planned to test them by applying a 30,000-meter (m) reverse-circulation drilling program in the fourth quarter of 2013 (Gryphon Minerals Ltd., 2013, p. 25–26).

Drake Resources of Australia was exploring for gold mineralization in the Tasiast South region that was associated with Birimian and Archaean age rocks of the Reguibat shield. Drake held a gold exploration permit that covers 1,800 km in the Tasiast South region, which is one of the lesser explored regions in Mauritania. The Hindrix Shear project was another major gold exploration project carried out by Drake in Mauritania. The project, which covers a 140-km-long crustal-scale shear zone included the Conchita prospect that contains widespread gold anomalies. Drake completed a 5,538-m reverse-circulation drilling program in 58 holes at the Conchita prospect, which resulted in 20 intersections with more than 1 g/t gold. In 2012, the company executed a 20,000-m air-core drilling program to test targets identified by airborne geophysical survey in 2011. The results of the drilling program, which were announced in May, confirmed the existence of gold mineralization in the top bedrock for 8 km of the shear zone (Drake Resources, 2012, p. 3, 5).

Iron Ore.—SNIM continued to be the sole iron ore producer in Mauritania; it produced 11.2 Mt of iron ore in 2012, which was slightly higher than that of 2011. SNIM operated three iron ore mines—the Guelb el Rhein Mine, the Kedia d’Idjill Mine, and the M’Haoudat Mine. The Guelb el Rhein deposit contains several hundred million metric tons of magnetite ore grading 37% iron. Hematite iron ore deposits were located in the Kedia d’Idjill and the M’Haoudat areas. The company used magnetic separation to bring the iron content up to 66% iron. The Government expected that five more mines would become operational in the next 4 years. SNIM continued expansion work to achieve its production target of 18 Mt/yr of iron ore by 2016. The expansion project included increasing the production capacities of the existing mines and constructing a new beneficiation plant at the Guelb el Rhein Mine that would have the capacity to produce 4 Mt/yr of concentrated iron ore. The \$710 million expansion project was financed by international financial institutions, such as the African Development Bank. The company was also building a new ore-carrier port next to the existing port at Nouadhibou to enable handling of 170,000-t-capacity ships in the first phase

and 250,000-t-capacity ships in the second phase, as well as upgrading the 700-km iron ore railway between the iron ore mines and the port (Société Nationale Industrielle et Minière, 2012, p. 14).

Xstrata plc of Switzerland, which acquired 87% of Sphere Minerals Ltd. of Australia in 2011, became known as GlencoreXstrata plc in 2013. Sphere Minerals continued its feasibility study for the Askaf iron ore project. The company continued with the prefeasibility study for the Guelb El Aouj phase 1 iron ore project, which was a 50-50 joint venture with SNIM to develop a 7-million-metric-ton-per-year-capacity iron ore mine at Guelb El Aouj. Sphere Minerals also identified 710 Mt of inferred iron ore resources for the Tintekrate magnetite deposit. The company had also identified 2,500 Mt of iron ore resources at the Lebtheinia magnetite-quartzite deposit, which is located 145 kilometers from the iron ore port of Nouadhibou (GlencoreXstrata plc, 2013, p. 34).

In addition to its joint venture with GlencoreXstrata, SNIM formed a joint venture with China Minmetals Corp. to develop the Tazadit underground mine (TUM). SNIM’s share of TUM was 65%, and that of China Minmetals was 35%. Mauritania Saudi Mining and Steel Co. was a 50-50 joint venture created between SNIM and Saudi Basic Industries Corp. (SABIC) to develop iron ore deposits at Guelb Atomai (Société Nationale Industrielle et Minière, 2013).

Bumi Mauritania S.A. and Tamagot Bumi S.A. were two subsidiaries owned by PT Bumi Resources Minerals Tbk (BRM) of Indonesia at 60% interest and 89.6% interest, respectively. The two companies were exploring for iron ore in Mauritania and held four iron ore concessions in the Tamagot region, which is located 250 km northeast of Nouakchott (PT Bumi Resources Minerals Tbk, 2013).

Société Minière Africaine du Sud et de l’Ouest S.A. (SOMASO S.A.), which was a joint-venture of Transafrika Resources Ltd. (70% interest) and Agrineq SA. (30% interest), was developing the Kaouat iron ore project (prospecting permit 273B1), which is located 255 km northeast of Nouakchott and covers 1,474 km². Transafrika targeted mining 1 billion metric tons (Gt) of ore grading 30% iron, which potentially would be concentrated to 67% iron (TransAfrika Resources Ltd., 2013).

Charter Pacific Corp. of Australia held an exploration permit for iron ore at the Kaoua El Khadra region. The company owned a 51% interest in the permit, and SNIM owned the remaining 49% interest. Charter Pacific set up an exploration target of up to 4.4 Gt of magnetite banded iron formations containing between 18% and 39% iron and planned to install a magnetic separation beneficiation plant to produce a higher iron content concentrate (Charter Pacific Corp., 2013).

Industrial Minerals

Gypsum.—Mauritania is home to one of the world’s largest gypsum deposits. Sebkhia N’Drhamcha, which is located about 50 km northeast of Nouakchott, contains at least 140 Mt of proven reserves of gypsum. Only a small fraction of the gypsum resources had been mined. The country’s estimated production of 75,000 t of gypsum was carried out by the Société Arabe des Industries Métallurgiques (SAMIA), which was a 50-50 joint

venture of SNIM and the Industrial Bank of Kuwait (table 2; Taylor and others, 2012, p. 15).

Phosphate Rock.—Mauritania's probable reserves of phosphate rock were estimated to be at least 100 Mt, including 70 Mt grading 21% P₂O₅ at the Bofal deposit and 29 Mt grading 19% P₂O₅ at the Louboria deposit. Both deposits occur in the ridges of phosphatic sedimentary stones of Eocene age uncovered along the northern bank of the Senegal River and located 300 km east of the Atlantic Coast. Bofal Indo Mining Co. S.A., which was established in 2010, was a joint venture of Archean Group of India and the Government to develop the country's first phosphate rock mine, which would be located in the Bofal-Loubeira area in southwestern Mauritania. Bofal was expected to produce 1 Mt/yr of phosphate rock by the end of 2013. The company also planned to build a phosphoric acid plant by 2015 (Marouf, 2010; Taylor and others, 2012, p. 15).

Quartz.—Mauritania Minerals Co. (MMC) was expected to start production of quartz at the Oum Agueineina Mine, which is located about 150 km from Nouadhibou Port, in 2012. The quartz mine was owned by MMC (90%) and the Government (10%) and had the capacity to produce 300,000 t/yr. MMC, which was awarded a license for the establishment of the first quartz operation in Mauritania, estimated that the Oum Agueineina deposit contained 70 Mt of quartz (Feytis, 2010).

Mineral Fuels and Related Materials

Natural Gas and Petroleum.—Crude oil production in Mauritania came from the offshore Chinguetti oilfield. PC Mauritania I Pty. Ltd. and PC Mauritania II B.V. (subsidiaries of PETRONAS International Corporation Ltd. of Malaysia) were the operators of the Chinguetti oilfield, which produced 2.4 million barrels (Mbbbl) of crude oil in 2012 compared with 2.8 Mbbbl in 2011 (table 1). Tullow Oil plc of the United Kingdom was exploring for crude oil in Block C–10. In 2011, Tullow completed the Cormoran-1 exploration well, appraised the Pelican gasfield, and discovered the Cormoran and the Petronia fields, which are two new underlying fields. The company planned to build the first natural gas pipeline in the country to carry natural gas from the Banda gasfield to Nouakchott; production at the gasfield was expected to begin in 2015. Total E&P of France was exploring for oil and gas in Block C–9 in the deep offshore area and Block A–29 in the Taoudenni Basin. In April, Charoit Oil & Gas Ltd. of the United Kingdom and Kosmos Energy Ltd. of the United States each signed an offshore oil exploration and production-sharing agreement with the Government (Marouf, 2012).

Uranium.—Forte Energy, which held 10 uranium exploration licenses that together covered 7,000 km² in the Zedens region in northern Mauritania, conducted vehicle-based radiometric surveys and very-low-frequency electromagnetic surveys at the A238, the Bir En Nar, and the Firawa prospects and at several anomalies identified near Bir Moghrein. The company renewed a 5,400-m diamond-drilling program at the Bir En Nar permit after completing a 4,115-m reverse-circulation drilling program. The company reported the indicated and inferred mineral resource estimates for the A238, the Bir En Nar, and the Firawa prospects to be 76.8 Mt containing 266 parts per million (ppm)

uranium oxide (U₃O₈) for about 20,400 t of contained U₃O₈ (reported as 44.9 million pounds) at a cutoff grade of 100 ppm (Forte Energy N.L., 2013).

In 2012, Aura Energy Ltd. of Australia focused its exploration activity on the Reguibat shield, which covers an area of about 8,400 km² in northern Mauritania. Aura Energy wholly owned eight uranium exploration permits and a 70% interest in two other permits in Mauritania in joint venture with Ghazal Minerals Ltd. Based on the results published in 2011 that established the presence of a Joint Ore Reserves Committee (JORC)-compliant inferred mineral resource of 21,800 t (reported as 48 million pounds) at 330 ppm U₃O₈ based on a cutoff grade of 100 ppm U₃O₈, Aura confirmed in 2012 the presence of calcrete uranium mineralization in areas outside the boundaries established in 2011. Alecto Minerals plc held two uranium licenses at the 888-km² Mreiti site and the 704-km² Wad Mourkba site, which are located in the Archean shield near the northern border with the Taoudeni sedimentary basin. The company put exploration at the Mreiti and the Wad Mourkba sites on hold to concentrate its efforts and resources on its gold and base-metal projects in Mauritania (Alecto Minerals plc, 2013, p. 4; Aura Energy Ltd., 2013).

Outlook

The mineral industry of Mauritania is expected to grow significantly in the near future with the entry of major mining companies, such as GlencoreXstrata, Gryphon, and Kinross, into the country's mining sector and the expansion plans by SNIM to increase its iron ore production from 11.2 Mt/yr in 2012 to 18 Mt/yr by 2016. The country's capacity to process, transport, and export iron ore is expected to reach 16 Mt/yr by 2013 following completion of the construction of a second loading wharf at the Port of Nouadhibou on the Atlantic Coast.

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TABLE 1
MAURITANIA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2008	2009	2010	2011	2012
METALS					
Copper in concentrate	33,073	36,600	37,000	39,900	37,670
Gold	6,254	7,837	8,305	8,172	7,652
Iron and steel:					
Iron ore:					
Gross weight	11,296	10,524	11,534	11,160	11,200
Iron content ^e	7,340	6,840	7,500	7,250	7,280
Steel ^c	5,000	5,000	5,000	5,000	5,000
INDUSTRIAL MINERALS					
Cement	322,419	324,415	552,382	565,029	644,000
Gypsum	44,428	36,928	65,245	72,153	75,000
Salt	570	455	391	690	700
MINERAL FUELS AND RELATED MATERIALS					
Petroleum, crude	4,412	4,105	3,025	2,824	2,400

^eEstimated; estimated data are rounded to no more than three significant digits. do. Ditto.

¹Table includes data available through February 26, 2014.

²In addition to the commodities listed, modest quantities of crude construction materials (clays, sand and gravel, and stone), phosphate rock, and quartz presumably were produced, but output was not reported quantitatively, and available information is inadequate to make reliable estimates of output.

TABLE 2
MAURITANIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2012

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Cement		Ciment de Mauritanie (Private Mauritanian investors, 90%, and Compañía Valenciana de Cementos, 10%)	Nouakchott	900
Do.		Mauritano-Française des Ciments S.A.	do.	450
Copper		Mauritanian Copper Mines (First Quantum Minerals Ltd., 100%)	Guelb Moghrein Mine, 250 kilometers northeast of Nouakchott	37
Gold	kilograms	do.	do.	2,900
Do.	do.	Tasiast Mauritanie Ltd. S.A. (Kinross Gold Corp., 100%)	Tasiast Gold Mine, 300 kilometers north of Nouakchott	7,300
Gypsum		Société Arabe des Industries Métallurgiques (SAMIA) [Industrial Bank of Kuwait, 50%, and Société Nationale Industrielle et Minière (SNIM), 50%]	Sebkha N'Drhamcha, 50 to 100 kilometers north-northeast of Nouakchott	100
Iron and steel:				
Iron ore		Société Nationale Industrielle et Minière (SNIM) (Government, 78.35%; Industrial Bank of Kuwait K.S.C, 7.17%; Arab Mining Co., 5.66%; Iraq Foreign Development Fund, 4.59%; Office National des Hydrocarbures et des Mines, 2.30%; Islamic Development Bank, 1.79%; private investors, 0.14%)	Guelb el Rhein, Kedia d'Idjill, and M'Haoudat Mines, Tiris Zemmour region	12,000
Do.		El Aouj Mining Co. S.A. [Société Nationale Industrielle et Minière (SNIM), 50%, and GlencoreXstrata plc, 50%]	Guelb el Aouj Mine, ¹ Tiris Zemmour region	7,000
Steel		Société Arabe du Fer et de l'Acier (SAFA) [Société Nationale Industrielle et Minière (SNIM), 100%]	Nouadhibou	1,000
Petroleum, crude	thousand 42-gallon barrels	PETRONAS International Corporation Ltd.	Chinguetti oilfield, 80 kilometers offshore	3,000
Quartz		Joint venture of Mauritania Minerals Co. (MMC), 90%, and Government, 10%	Oum Agueineina Mine, 150 kilometers from Nouadhibou	300
Salt	metric tons	Société Mauritanienne des Industries du Sel (SOMISEL)	Sabkha de N'terert and d'Idjill brine pits, in the southwestern part of the country	500

Do., do. Ditto

¹Under development.