The Mineral Industry of Mauritania

By Mowafa Taib

Mauritania was a significant supplier of copper, gold, and iron ore to the world in 2014. The country was one of the world’s top 15 iron-ore-exporting countries and Africa’s third-ranked producer and exporter of iron ore after South Africa and Sierra Leone. Mauritania also produced modest quantities of cement, crude oil, gypsum, quartz, salt, and crude steel (table 1; ISSB Ltd., 2015; World Steel Association, 2015, p. 102).

Minerals in the National Economy

In 2014, Mauritania’s gross domestic product (GDP) increased in real terms by 6.4% to about $5.1 billion compared with a revised rate of growth of 5.7% in 2013. The value of activities in the mineral sector, which included crude oil and metal production, increased in real terms by 1.8% in 2014 compared with a revised increase of 0.3% in 2013. Production in the petroleum sector decreased at a rate of 19.6% in 2014 compared with a decrease of 5.4% in 2013. The contribution of the mining sector, which included copper, crude oil, gold, and iron ore production, to the country’s GDP decreased to 17.2% in 2014 from 24.0% in 2013 and 26.5% in 2011. Iron ore mining was estimated to have contributed 10.8% to the GDP in 2014 compared with 16.4% in 2013; and copper and gold contributed 3.2% to the GDP in 2014 compared with 3.9% in 2013 (Banque Centrale de Mauritanie, 2015, p. 89, 91, 94).

The flow of foreign direct investment (FDI) to Mauritania continued in 2014 but at a much reduced rate compared with the historic surge of 2012. The estimated value of FDI inflows to Mauritania in 2014 was $492 million, which was a decrease of 56% compared with $1.1 billion in 2013 and a decrease of 65% compared with about $1.4 billion in 2012 (United Nations Conference on Trade and Development, 2015, p. A4, A17).

Government Policies and Programs

The Ministère du Pétrole et de l’Énergie [Ministry of Petroleum and Energy] is responsible for overseeing activity in the mineral fuels industry. The Government approved several amendments to its Hydrocarbon Code and Mining Code in 2011. The Ministère de l’Industrie et des Mines [Ministry of Industry and Mines] is the Government agency responsible for regulating the country’s mining industry. The Direction des Mines et de la Géologie [Department of Mines and Geology] implements the Government’s policies to enhance foreign investment in the mining sector. The Code Minier [Mining Code] awards exploration permits on a first-come-first-served basis for a 3-year period that 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 for equipment during exploration and the first 5 years of production and permanently on fuel and spare parts. The tax code includes a 25% corporate income tax rate after a tax exemption for the first 3 years of production, a tax withholding rate of 14% on repatriated earnings, and a 16% value-added tax (Ministère du Pétrole et de l’Énergie et des Mines, 2012).

The revisions to the Mining Code in 2012 changed the method by which royalties are calculated and the area of land that is assigned for exploration permits. Revisions to the Mining Law added a 10% tax on all mining transactions and made international commodity prices the basis for the royalty calculation. The area of land allocated for each exploration permit was reduced to 500 square kilometers (km²) from 1,000 km² for all minerals except for the areas allocated for diamond concessions, which remain at 5,000 km². Mining royalties range from 1.5% to 6% of the price of the final processed mineral product. The royalty for Group 1 minerals, which includes chromium, iron ore, manganese, titanium, and vanadium, is assessed at 2.5% of the price. The royalty increases to 3% for iron ore sold at The Steel Index (TSI) price of between $100 and $150 per metric ton and to 3.5% for iron ore sold at a price of between $150 and $200 per metric ton. The royalty for Group 2 minerals, which includes precious and nonferrous metals, is 3% of the price on the London Metal Exchange (LME), with the exception of copper (ranges between 3% and 5%, depending on the LME price), gold (ranges between 4% and 6.5%, depending on the LME price), and platinum-group elements (4%). The royalty for Group 3 minerals, which includes coal and fuel minerals, is 1.5% of the sale price; Group 4, which includes uranium and other radioactive materials, is 3.5%; Group 5, industrial minerals and construction materials, 2.5%; and Group 6 minerals (gemstones) and Group 7 minerals (diamond), 5% and 6%, respectively (Ministère du Pétrole et de l’Énergie et des Mines, 2012).

The Ministère du Pétrole et de l’Énergie [Ministry of Petroleum and Energy] is responsible for overseeing activity in the mineral fuels industry. The Government approved several amendments to its Hydrocarbon Code and Mining Code in 2011. Mauritania has been an Extractive Industries Transparency Initiative (EITI)-compliant country since 2012. The EITI processes are designed to promote transparency and to improve living conditions in and around mining sites. The country has an established EITI national committee and a “publish what you pay” coalition chapter, which calls on mining companies to publish what they pay to Governments (Extractive Industries Transparency Initiative, 2012; Coulibaly, 2013).

Production

In 2014, crude steel and cement production increased by 11% and 12%, respectively, compared with that of 2013, and iron ore output increased by 7%. Copper production decreased by 13% and crude oil production decreased by 11%. Production of other mineral commodities, such as gypsum and salt, was estimated to be at the same levels of those of 2013 (table 1).
Structure of the Mineral Industry

In 2014, approximately 70 local and international companies were involved in mineral exploration and production in Mauritania for such mineral commodities as copper, diamond, gold, gypsum, iron ore, phosphate rock, quartz, and uranium. Société Nationale Industrielle et Minière (SNIM) was the main majority state-owned mining company (78.35% interest) in the country; it 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 the Port of Nouadhibou on the Atlantic coast. SNIM subsidiaries included Granites et Marbres de Mauritanie (GMM) S.A., Société Arabe des Industries Métallurgiques S.A. (SAMIA), and Société Arabe du Fer et de l’Acier S.A. (SAFA) (Société Nationale Industrielle et Minière, 2015c).

Société Mauritanienne des Hydrocarbures et de Patrimoine Minier (SMHPM), which is Mauritania’s national oil company, maintained a 10% interest in international oil companies that were conducting petroleum exploration offshore and onshore. Other companies involved in mineral production in Mauritania were privately and (or) publicly owned. Sphere Minerals Ltd., a subsidiary of Glencore plc of Switzerland, was a partner with SNIM in the Guelb el Aouj iron ore mining project, as well as majority shareholder in the Askaf iron ore project (Société Mauritanienne des Hydrocarbures et de Patrimoine Minier, 2015; Société Nationale Industrielle et Minière, 2015c).

Tasiast Mauritanie Ltd. S.A. (a wholly owned subsidiary of Kinross Gold Corp. of Canada) and Mauritanian Copper Mines S.A. (MCM) (a wholly owned subsidiary of First Quantum Minerals Ltd. of Australia) produced gold in 2014. MCM was the sole producer of copper as was PETRONAS International Corporation Ltd. (a subsidiary of Petronas National Berhad of Malaysia) for crude oil. Two companies produced cement—Ciment de Mauritanie S.A. and Mauritanien-Française des Ciments S.A. SAMIA was the sole producer of gypsum, Mauritania Minerals Co. S.A. (MMC) produced quartz, and Société Mauritanienne des Industries du Sel (SOMISEL) was responsible for salt output (table 2).

Mineral Trade

The value of total exports in Mauritania decreased to $1.9 billion in 2014 from $2.6 billion in 2013. The decrease was mainly attributable to lower mineral commodity prices on the world markets. Iron ore exports, which exceeded 13 million metric tons (Mt) in 2014, accounted for 37.7% of the country’s total exports by value in 2014 compared with 51.2% in 2013. The decrease was attributable to a 40% decrease in iron ore prices in 2014, which averaged $56 per metric ton. In 2014, 70% of Mauritania’s iron ore exports went to China compared with 75% in 2013. The remaining exports went to Germany (13%), Italy (9%), France (6%), and India and other countries (1% each). Gold exports decreased in value by 13% in 2014 compared with a 6% increase in 2013. Copper exports decreased in value by 23% in 2014 because of an 18.6% decrease in volume coupled with a 5.6% decrease in value. Crude oil exports decreased by 10% in 2014 compared with those of 2013. The decrease was attributed to a 7% decrease in crude oil prices and 3.2% decrease in the volume of crude oil exports (Banque Centrale de Mauritanie, 2015, p. 36–39, 96).

Commodity Review

Metals

Copper.—The Guelb Mogharein Mine, which as wholly owned and operated by MCM, produced 33,079 metric tons (t) of copper in 2014 compared with 37,970 t in 2013. MCM milled about 3.1 Mt of sulfide ore grading 1.2% copper and produced about 36,684 t of copper in concentrate. As of yearend 2013, MCM estimated the total mineral reserves at the Guelb Mogharein Mine, which included proven, probable, proven high-grade stockpile, and proven low-grade stockpile reserves at a cutoff grade of 0.46% copper, to be 31.3 Mt of ore grading 0.92% copper and 0.69 gram per metric ton (g/t) gold (First Quantum Minerals Ltd., 2014, p. 10, 2015).

OreCorp Mauritania S.A.R.L., a subsidiary of OreCorp Ltd. of Australia, held two licenses at south Akjoujt to explore for copper and nickel in a 460-km² area. The Akjoujt South project lies in the Proterozoic Mauritanide Belt, and is located 30 km south of Guelb Mogharein Mine. The project was at the early exploration stage by yearend 2014 (OreCorp Ltd., 2015).

Gold.—Mauritania’s gold output increased slightly in 2014 compared with that of 2013. Two mines produced gold in Mauritania in 2014, the copper-gold Guelb Mogharein Mine and the Tasiast gold mine. The Guelb Mogharein Mine produced 1,528 kilograms (kg) of gold in 2014, which was about 16% less than the 1,810 kg of gold produced in 2013. The Tasiast gold mine, which was owned and operated by Kinross and is located in northwestern Mauritania, produced 8,102 kg of gold in 2014 compared with 7,708 kg of gold in 2013, which was a 5% increase in production. As of yearend 2014, estimates of proven and probable mineral reserves at the Tasiast deposit were 161.8 Mt of ore at a grade of 1.77 g/t gold for a total of 286,000 kg of gold. The measured and indicated resources were estimated to be 85.6 Mt at a grade of 1.14 g/t gold for a total of 97,600 kg of gold (First Quantum Minerals Ltd., 2014, p. 10, 2015; Kinross Gold Corp., 2015a, p. MDA23, b).

In March, Kinross cut the cost of its Tasiast gold mine expansion project by about 41% to $1.6 billion from $2.7 billion. The National Investment 43–101 Technical Report indicated that Kinross would not decide the scope of the expansion project until 2015 or later. The report also projected a more than threefold increase in gold production during the 17-year mine life (Els, 2014).

Gryphon Minerals Ltd. of Australia was exploring for copper and gold in the area covered by the Tijirit permit, which is located in northwestern Mauritania in a gold district that includes the Tasiast gold deposit. The Tijirit gold project, which was wholly owned by Gryphon, encompassed connecting exploration licenses covering an area of about 1,400-km². Gryphon planned to mine gold from the license area based on earlier drilling results obtained by Shield Mining Ltd. of Australia (Gryphon Minerals Ltd., 2015).

In 2014, Drake Resources Ltd. of Australia reduced the area of its gold exploration permit in Mauritania. The company
kept parts of the exploration license that host extensions of the Aouéouat and Tijirit greenstone belts, including the Ghassariat Prospect, which is located south of the Tasiast gold mine (Drake Resources Ltd., 2014, p. 18).

Iron Ore.—SNIM increased iron ore production to 14 Mt in 2014 from 13 Mt in 2013. The company operated three iron ore mines—the Guelb el Rhein, the Kedia d’Idjill, and the M’Haoudat Mines. The Guelb el Rhein deposit contained several hundred million metric tons of magnetite ore grading 37% iron, which was enriched at the Guelb el Rhein plant by dry magnetic separation to bring the iron content up to 66%. The plant had the capacity to concentrate 5 million metric tons per year (Mt/yr) of iron ore. Hematite iron ore deposits are located at the Kedia d’Idjill and M’Haoudat areas, which accounted for 60% of SNIM’s iron ore production. SNIM has been developing its facilities to increase iron ore output to 18 Mt/yr by yearend 2016. The work included increasing the production capacities of the existing mines and constructing a new iron ore beneficiation plant at the Guelb el Rhein Mine (Guelb 2) that would have the capacity to produce 4 Mt/yr of high-grade concentrated iron ore (68.5% iron). Guelb 2 was expected to begin production in 2016 (Société Nationale Industrielle et Minière, 2014a).

SNIM was implementing a capacity building and expansion plan, which it called Nouhoubdi (rising up), that aimed to increase iron ore production to 40 Mt/yr and to make SNIM one of the world’s top five exporters of seaborne iron ore. By yearend 2014, Mauritania had the capacity to process, transport, and export more than 16 Mt/yr of iron ore, following completion of a second loading wharf at the Port of Nouadhibou on the Atlantic coast (Société Nationale Industrielle et Minière, 2014b–d).

In 2014, SNIM implemented cost-reduction measures to address the more than 50% decline in iron ore prices on international markets, which began in late 2013 and continued throughout 2014. The cost reductions affected all aspects of company spending, except employment and employee benefits (Société Nationale Industrielle et Minière, 2015a, b).

In June, SNIM signed an agreement with Glencore to develop the Askaf iron ore mine in return for access to SNIM’s port, railway, and storage facilities for 18 years (Manson, 2014; Steel Orbis, 2014). Glencore was finalizing the evaluation of its two iron ore projects in Mauritania, the Askaf and the Guelb el Aouj, which were expected to produce more than 22.5 Mt/yr of iron ore when completed. Sphere Minerals signed an engineering, procurement, and construction contract worth $600 million with Essar Projects Ltd. of India to build a 7.5-Mt/yr iron ore beneficiation plant. The plant was expected to start production in 2017, but Sphere Minerals decided to slow down the pace of the construction of the project because of the decline in iron ore prices in the world market (Glencore plc, 2014, p. 61; Mining-technology.com, 2014).

Glencore, which had acquired 89% of Sphere Minerals in 2011, completed a feasibility study for the Askaf iron ore project and a prefeasibility study for the Guelb el Aouj phase 1 iron ore project, which was a joint venture with SNIM to develop a 15-Mt/yr-capacity iron ore mine at the Guelb el Aouj. The El Aouj is considered to have large-scale iron ore production potential, and is located in an area that hosts about 4 billion metric tons (Gt) of iron ore (Glencore plc, 2014, p. 61).

In addition to its joint venture with Glencore, 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% (Société Nationale Industrielle et Minière, 2014e). Mauritania Saudi Mining and Steel Co. (Takamul) was a 50–50 joint venture created between SNIM and Saudi Basic Industries Corp. (SABIC) to develop iron ore deposits at the Atomi Mines in Zouerate, northern Mauritania, which has an estimated 500 Mt of mineral resources, which could increase to 1 Gt following the completion of the drilling program. The project was expected to support a 10-Mt/yr direct reduction pellets plant (Arab News, 2014; Mauritania Saudi Mining and Steel S.A., 2015).

Bumi Mauritania S.A. and Tamagot Bumi S.A. were subsidiaries of PT Bumi Resources Minerals Tbk (BRMS) of Indonesia at 60% interest and 89.6% interest, respectively. The two companies had been exploring for iron ore in Mauritania since 2005 and held four iron ore concessions in the Tamagot region, which is located 250 km northeast of Nouakchott. In December 2013, BRMS transferred its assets in the iron ore project in Mauritania to Rubis International Ltd., which was a local partner in the project (Samboh, 2014; PT Bumi Resources Minerals Tbk, 2015).

Societe Miniere d’Afrique du Sud et de l’Ouest S.A. (SOMASO), which was a joint-venture of TransAfrika Resources Ltd. (70% interest) and Agrineq S.A. (30% interest), continued exploration work at the Kaouat iron ore project (prospecting permit 273B1), which is located 255 km northeast of Nouakchott and covers 1,474 km². SOMASO identified an exploration target of 1 Gt of ore grading 30% iron, which could potentially be concentrated to 67% iron (TransAfrika Resources Ltd., 2015).

Charter Pacific Corp. (CPC) of Australia held an exploration permit for iron ore at the Kaoua El Khadra region, which is located near Akjoujt and the Guelb Moghrein copper-gold mine. The company owned a 51% interest in the permit, and SNIM owned the remaining 49% interest. CPC set up an exploration target of up to 4.4 Gt of magnetite banded iron formations containing an average of 30% iron and planned to install a magnetic separation beneficiation plant to produce higher content iron ore. Legleitat Iron Mauritanie (a 70%-owned subsidiary of CPC) was awarded a mining permit for an advanced hematite deposit that hosts direct-shipping-grade iron ore. The Legleitat iron ore deposit has an estimated inferred resource of 12.2 Mt of iron ore containing 59% iron that has the potential to support production of 1 Mt/yr of direct-shipping-grade iron ore for 10 years. In 2013, the Davis Tube Recovery phase 1 trenching results for banded iron formation in the Kaoua Khadra permit (permit 792) indicated mass recoveries of iron ore up to 43.7% and concentrates up to 69.76% iron (Charter Pacific Corp., 2013, 2015).

Industrial Minerals

Gypsum.—Only a small fraction of the 140 Mt of proven reserves of gypsum at the Sebkha N’dramcha, which is located about 50 km northeast of Nouakchott, had been mined. The country’s main producer of gypsum was SAMIA, which was
a 50–50 joint venture of the SNIM and the Industrial Bank of Kuwait, and it had been producing 60,000 metric tons per year (t/yr) of gypsum. Two-thirds of SAMIA’s production was used in cement production and one-third in plaster production (table 2; Taylor and others, 2012, p. 15; Ould Eleya, 2014).

**Phosphate Rock.**—Bofal Indo Mining Co. S.A. was a joint venture of Archean Group of India and the Government, which was created to develop the country’s first phosphate rock mine, and would be located in the Bofal-Loubboira area in southwestern Mauritania. The company was expected to produce 1 Mt/yr of phosphate rock by the end of 2013 but the project appeared to have stalled through 2014 as no phosphate rock production was reported in the country. Mauritania’s probable reserves of phosphate rock were estimated to be at least 100 Mt, including 70 Mt grading 21% phosphorus pentoxide (P$_2$O$_5$) at the Bofal deposit and 29 Mt grading 19% P$_2$O$_5$ at the Loubboira deposit. Both deposits occur in the outcrops of phosphatic sedimentary rocks of Eocene age along the northern bank of the Senegal River in southern Mauritania and are located 300 km east of the Atlantic coast (Marouf, 2010; Taylor and others, 2012, p. 14–15).

**Quartz.**—Mauritania Minerals Co. S.A. (MMC) produced high-purity quartz (99.9%) from its open pit mine at the Oum Agueneina, which is located 130 km east of the Port of Nouadhibou. MMC held a 30-year license that covers 577 km$^2$ and was the site of the first quartz operation in Mauritania. The Oum Agueneina deposit contained 70 Mt of quartz. The quartz mine was owned by MMC (90%) and the Government (10%), and had the capacity to produce between 100,000 t/yr and 500,000 t/yr of quartz (Hughes, 2013, p. 24; Mauritania Minerals Co. S.A., 2014).

**Mineral Fuels and Related Materials**

**Natural Gas and Petroleum.**—Crude oil production in Mauritania, which came from the offshore Chinguetti oilfield, decreased by 11.6% in 2014 to 180,900 barrels per month compared with 204,600 barrels per month in 2013. The decrease was attributed to the decline in reserves at the Chinguetti oilfield and to technical difficulties that resulted in some interruption of production during 2014 (table 1; Banque Centrale de Mauritanie, 2015, p. 29).

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. Tullow Oil plc of the United Kingdom was exploring for crude oil in eight offshore permits, including Blocks C–3, C–10, C–18, Block 7, and PSC B (Chinguetti EEA). 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. However, the project did not receive sufficient funding and was not expected to be completed by 2015. In August, Tullow began exploration operations following a technical oil discovery at Fregate–1. The company increased its exploration acreage after signing a production-sharing contract with the Government for the shallow water Block C–3 license area in April (table 2; Tullow Oil plc, 2015, p. 53, 163).

In March, Repsol S.A. of Spain and RWE Dea A.G. of Germany started drilling the Ouguiya–1 well in Block Ta10 in the Taoudenni basin in central Mauritania to provide information about the hydrocarbon potential of the 14,450 km$^2$ license area. The well was completed in the second quarter. Repsol was the operator, with 70% interest, and RWE Dea held 30% interest in the project. Other companies that were exploring for oil and gas in Mauritania included Total E&P Mauritania (a subsidiary of Total S.A. of France), which was operating Block C–9 in the deep offshore area and Block A–29 in the Taoudenni basin; Charoit Oil & Gas Ltd. of the United Kingdom; and Kosmos Energy Ltd. of the United States (Oil and Gas Journal, 2013; Africa Oil and Gas Report, 2014).

**Uranium.**—Nine companies were exploring for uranium in Mauritania in 2014. These companies included Agrineq S.A., Aura Energy Ltd., Forte Energy N.L., and Shield Mining Ltd. (all of Australia); Alba Mineral Resources Plc. (United Kingdom); and PT Earthstone Resources Ltd. (Indonesia). Additionally, three domestic companies were engaged in uranium exploration—Lusitania Uranium Mauritania, Mauritania Resources Ltd., and OreCorp Mauritania (WISE Uranium Project, 2014).

In July, Aura Energy announced the results of a preliminary scoping study of the Reguibat uranium project that confirmed very shallow mineralization and the potential for creating a uranium mine that could be upgraded by simple beneficiation to high-grade leach feed. Aura hoped that the results of the scoping study would lead to the construction of a uranium mine and leach processing plant capable of producing 341,000 kilogram per year (kg/yr) uranium oxide (U$_3$O$_8$) over 15 years, including 544,545 kg/yr in the early years, with low upfront capital and operating cost. The study however, was based on a uranium price of $143 per kilogram U$_3$O$_8$, which was more than the 2014 spot and term prices. The company planned to extend its 224 km$^2$ uranium exploration permit in Mauritania (WISE Uranium Project, 2014; Aura Energy Ltd., 2014).

Forte Energy, which held 10 exploration permits that covered 9,925 km$^2$ in the Zednes region in northern Mauritania, conducted vehicle-based radiometric surveys and very-low-frequency electromagnetic surveys at the Anomaly 238 (A238), which is located 55 km southeast of the Bir Moghrein, and the Bir En Nar prospect in the Zednes region. The company updated its inferred mineral resource estimates for A238 to 45.2 Mt containing 235 parts per million (ppm) U$_3$O$_8$ for 10,620 t of contained U$_3$O$_8$ (reported as 23.4 million pounds) at a cutoff grade of 100 ppm. Estimates for indicated and inferred mineral resources at the Bir En Nar resource were revised to 1.33 Mt containing 704 ppm for 936,000 kg (reported as 2.06 million pounds) at a cutoff grade of 100 ppm U$_3$O$_8$ (Forte Energy N.L., 2015).

**Outlook**

Mauritania continues to focus on developing its mineral resources in general and iron ore in particular. Copper production is expected to remain at the same level of those achieved in recent years, and gold production is not likely to increase in the near future until Kinross decides on an expansion plan for the Tasiast Mine. SNIM plans to increase its iron ore
production to 18 Mt/yr by 2016 and to 40 Mt/yr by 2025 from the current 14 Mt/yr. This production goal is expected to be achieved after the recovery of iron ore prices on international markets and after completion of the iron ore projects that are currently being developed as partnerships between SNIM and such international mining companies as ArcelorMittal, CPC, China Minmetals, Glencore, PT Bumi Resources, and SOMASO.

References Cited


### TABLE 1

**MAURITANIA: PRODUCTION OF MINERAL COMMODITIES**

(Metric tons unless otherwise specified)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>2010</th>
<th>2011</th>
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<td>METALS</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Copper, in concentrate</td>
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<td>35,281</td>
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<td>37,970</td>
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<td>Gold</td>
<td>8,305</td>
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<td>9,625</td>
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<td>Iron ore:</td>
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<tr>
<td>Gross weight</td>
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<td>11,160</td>
<td>11,200</td>
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<td>8,100</td>
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<td>Steel</td>
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<td>9,000</td>
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<td>INDUSTRIAL MINERALS</td>
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<td>Cement</td>
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<td>690,000</td>
<td>770,000</td>
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<td>Gypsum</td>
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<td>72,153</td>
<td>75,000</td>
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<td>391</td>
<td>690</td>
<td>700</td>
<td>700</td>
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<td>MINERAL FUELS AND RELATED MATERIALS</td>
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<td>Petroleum, crude</td>
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<td>2,824</td>
<td>2,400</td>
<td>2,460</td>
<td>2,200</td>
</tr>
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</table>

1 Estimated; estimated data are rounded to no more than three significant digits. 2 Revised. do. Ditto.

1 Table includes data available through November 10, 2015.

2 In 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 was inadequate to make reliable estimates of output.
<table>
<thead>
<tr>
<th>Commodity</th>
<th>Major operating companies and major equity owners</th>
<th>Location of main facilities</th>
<th>Annual capacity</th>
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<tr>
<td>Cement</td>
<td>Ciment de Mauritanie S.A.</td>
<td>Nouakchott</td>
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<td>Do. Copper</td>
<td>Mauritano-Française des Ciments S.A.</td>
<td>do</td>
<td>450</td>
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<td>Gold</td>
<td>Mauritani Copper Mines S.A. (MCM) (First Quantum Minerals Ltd., 100%)</td>
<td>Guéb Moghdrein Mine, Akjoujt, Inchiri District</td>
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<td>Gold</td>
<td>Tasiast Mauritanie Ltd. S.A. (Kinross Gold Corp., 100%)</td>
<td>Tasiast gold mine, 300 kilometers north of Nouakchott</td>
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<td>Do. Gold</td>
<td>Mauritani Copper Mines S.A. (MCM) (First Quantum Minerals Ltd., 100%)</td>
<td>Guéb Moghdrein Mine, Akjoujt, Inchiri District</td>
<td>2,900</td>
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<tr>
<td>Gypsum</td>
<td>Société Arabe des Industries Métallurgiques (SAMIA) [Industrial Bank of Kuwait, 50%, and Société Nationale Industrielle et Minière (SNIM), 50%]</td>
<td>Sebkha Ndramcha, Nouakchott</td>
<td>100</td>
</tr>
<tr>
<td>Iron and steel:</td>
<td>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%)</td>
<td>Guéb el Rhein, Kédia d'Idjill, and M'Haoudat Mines, Tiris Zemmour region</td>
<td>13,000</td>
</tr>
<tr>
<td>Iron ore</td>
<td>El Aouj Mining Co. S.A. [Société Nationale Industrielle et Minière (SNIM), 50%, and Glencore plc, 50%]</td>
<td>Guéb El Aouj Mine, Tiris Zemmour region</td>
<td>7,000</td>
</tr>
<tr>
<td>Steel</td>
<td>Société Arabe du Fer et de l’Acier (SAFA) [Société Nationale Industrielle et Minière (SNIM), 100%]</td>
<td>Nouadhibou</td>
<td>10,000</td>
</tr>
<tr>
<td>Petroleum, crude</td>
<td>PETRONAS International Corp. Ltd. (Petroliam Nasional Berhad, 100%)</td>
<td>Chinguetti oilfield, 80 kilometers offshore</td>
<td>3,000</td>
</tr>
<tr>
<td>Quartz</td>
<td>Joint venture of Mauritanian Minerals Co. S.A. (MMC), 90%, and Government, 10%</td>
<td>Oum Agueneina</td>
<td>500</td>
</tr>
<tr>
<td>Salt</td>
<td>Société Mauritanienne des Industries du Sel (SOMISEL)</td>
<td>Sebkha de N'Terert and Sebkhet ej Jill brine pits, in the southwestern part of the country</td>
<td>1,000</td>
</tr>
</tbody>
</table>

1Under development.