



2013 Minerals Yearbook

QATAR

THE MINERAL INDUSTRY OF QATAR

By Waseem A. Abdulameer

In 2013, Qatar continued to play a significant role in the global mineral commodities sector, primarily as the world's leading exporter of liquefied natural gas (LNG), as a major crude oil producer, and as the world's third-ranked helium producer. In terms of world output, Qatar produced moderate amounts of aluminum, ammonia, direct-reduced iron (DRI), and urea. Qatar's earnings from its hydrocarbon sector, which accounted for about one-half of its gross domestic product (GDP), accounted for about 60% of the country's total Government revenues in 2013 (Qatar Ministry of Development Planning and Statistics, 2013, p. 5). Qatar accounted for 2% of the world's crude oil production in 2013, and ranked fourth globally in natural gas production, accounting for about 4.6% of the world's total (International Energy Agency, 2014, p. 13; U.S. Energy Information Administration, 2014). Qatar had the third-largest proved natural gas reserves in the world, which were estimated to be 25.04 trillion cubic meters in 2013. Qatar was also one of the major gas-to-liquids (GTL) producers, and produced other mineral commodities, such as cement, lime, methanol, and sulfur, by yearend 2013 (table 1; Apodaca, 2014; BP p.l.c., 2014, p. 6, 8, 20, 22; International Monetary Fund, 2014, p. 4; Qatar National Bank S.A.Q., 2014, p. 3, 12).

Minerals in the National Economy

Qatar's real GDP increased by 6.0% in 2013 compared with an increase of 6.2% in 2012. The hydrocarbon sector accounted for one-half of the value of Qatar's economy in 2013. Qatar was among the most competitive countries in the global natural gas market, accounting for about one-third of the global LNG trade in 2013, and it was a key supplier to India, Japan, the Republic of Korea, and the United Kingdom. Qatar's gas production increased moderately in 2013 both to meet the increasing domestic demand for electricity generation, and to produce GTL and petrochemicals. As part of the national development strategy for 2011 to 2016 that was adopted in 2008 to help sustain and diversify the country's economic growth, the Government carried out a new array of projects that focused on construction, crude oil, petrochemicals, and transport in 2013. Those projects included Al Sejeel petrochemical, the Doha Port, the Qatar Integrated Rail, and the Hamad International Airport projects and were part of an effort to develop and strengthen the country's infrastructure (International Monetary Fund, 2014, p. 4, 6; Qatar National Bank S.A.Q., 2014, p. 1, 11, 16; World Bank, The, 2014a, p. 3, 40).

Government Policies and Programs

The Government in Qatar had embraced new plans by the mid-2000s that were focused on maintaining growth and responding flexibly to global economic fluctuations (Office of the United States Trade Representative, 2014). The

Qatar National Vision (QNV 2030) set long-term economic transformation goals aimed at diversifying the economy and creating more job opportunities while maintaining transparent and practical investment policies. The vision's core objective is to transform Qatar into a diversified economy by 2030. The Qatar Organization of Foreign Capital Investment Law No. (13) of 2000 permits foreign investors to own up to 100% of projects that involve the production of natural (including mineral) resources and energy and development of the mining sector, contingent upon the Government's approval (Qatar Central Bank, 2014). The moratorium on new projects in Qatar's North Field, which was declared in 2005 and took effect in 2012, was projected to continue until 2015; the ongoing moratorium was expected to result in slower growth in production in the next 2 years (U.S. Department of State, 2014, p. 1–2).

According to the International Monetary Fund, Qatar embarked on a diversification strategy through budget-financed investment projects that were to help support private sector development and sustain the macroeconomic policy framework (International Monetary Fund, 2014, p. 2–3; U.S. Energy Information Administration, 2014; World Trade Organization, 2014, p. 4, 8, 15).

Production

Qatar's mineral production had only a few notable changes in 2013 compared with that of 2012. Most significantly, helium production increased by 39% compared with that of 2012. Increases were also recorded in the production of such minerals as urea, by 21% and ammonia, by 13%. Production of aluminum, methanol, dry natural gas, and crude oil and condensate increased slightly. Cement production decreased by 3%, and DRI production decreased by 1% (table 1).

Structure of the Mineral Industry

Qatar Petroleum (QP), which was a state-owned public corporation, was established by Emiri Decree No. 10 in 1974. QP owned and operated all exploration, refinery, and production facilities in the State of Qatar (Qatar Petroleum, 2014b, p. 18). Through its subsidiaries, QP controlled all aspects of Qatar's upstream and downstream crude oil and natural gas sector, including the exploration, production, transport, storage, marketing, and sale of crude oil, GTL, LNG, natural gas liquids (NGLs), fertilizers, and petrochemicals. Qatargas Co. operated four primary LNG enterprises at Ras Laffan (Qatar Petroleum, 2014a).

In 2013, Industries Qatar Q.S.C. (IQ), which was a state-owned company, owned 80% of Qatar Petrochemical Co. Ltd. Q.S.C. (QAPCO), and 50% of Qatar Fuel Additives Co. Ltd. Q.S.C. (QAFAC), which produced mainly methanol, petrochemicals, and sulfur. IQ also owned 75% of Qatar Fertilizer Co. S.A.Q. (QAFCO), which produced primarily ammonia, urea, and

urea formaldehyde condensate (UFC–85). Qatar Steel Co. Q.S.C. (QASCO) produced hot-briquetted iron (HBI) and DRI, steel-reinforcing bar (rebar), steel billets, and steel coils, in addition to lime (Industries Qatar Q.S.C., 2014, p. 10, 12, 14; U.S. Energy Information Administration, 2014).

Mineral Trade

According to the Organization of the Petroleum Exporting Countries (OPEC), Qatar's petroleum exports were valued at \$6.25 billion, or nearly one-half of the country's \$13.64 billion worth of total exports in 2013 (Organization of the Petroleum Exporting Countries, 2014a). Qatar's petroleum exports increased by about 10% in 2013 compared with that of 2012, and went primarily to countries in the Asia and the Pacific region. Qatar's exports of natural gas increased by about 6% from the previous year. Qatar continued to export most of its petroleum products to the Asia and the Pacific region, mainly Japan, which accounted for about 29% of Qatar's total hydrocarbon exports, followed by the Republic of Korea, 17%; India, 10%; and China, 8% (Perumal, 2014).

In September 2013, Qatar Customs Authority introduced a new Government online portal for exports and imports, which was called Al Nadeeb. The Web-based system would allow transactions to be conducted electronically for different customs and declaration operations, such as registration, inspection, tracking, and electronic payment. The system, which would be connected to 17 other agencies in the e-Government System, was expected to increase Qatar's customs efficiency by reducing the processing time for import and export operations, and permitting electronic filing of declaration forms to the authorities (Said, 2014, p. 32–33; World Bank, The, 2014b, p. 64–65).

According to the Qatar Ministry of Development Planning and Statistics, the year-on-year increase of 3% in exports was attributed to an increase in the quantity of exports of mineral fuels, lubricants, and related material exports. Ammonia exports increased by 24%, and those of other chemicals, by 11%, whereas iron and steel exports decreased by 18%, and nonferrous metal exports, by about 1%. Mineral or chemical fertilizer exports increased by 5%, and exports of petroleum oils (other than crude) increased by 8% (Qatar Ministry of Development Planning and Statistics, 2014, p. 4–5).

In 2013, Qatar imports increased in value by 7% compared with those of 2012. This increase was owing mainly to a 12% increase in machinery and transport equipment imports, a 14% increase in chemicals and related products imports, and a 9% increase in manufactured articles imports. Organic chemicals exports increased by 25%, whereas those of inorganic chemicals decreased by 30%. Iron ore and concentrates exports increased by 20% (Qatar Ministry of Development Planning and Statistics, 2014, p. 3–7).

In 2013, Japan continued to be the major destination for Qatar's exports, whereas the United States was Qatar's leading goods supplier (World Bank, The, 2014a, p. 40, 49). The U.S. trade surplus with Qatar was \$3.6 billion in 2013, which was a 41% increase compared with that of 2012. Qatar was the 45th-ranked goods exports market for the United States in 2013. U.S. imports from Qatar were valued at \$1.4 billion in 2013,

which was a 33% increase compared with that of 2012. Qatar exported mainly mineral fuels (LNG), fertilizers, aluminum, and organic chemicals to the United States, and imported aircraft, vehicles, machinery, and precious stones from the United States (Office of the United States Trade Representative, 2014).

Commodity Review

Metals

Aluminum.—In 2013, Qatar Aluminium Ltd. (QATALUM), which was a 50–50 joint venture between QP and Norsk Hydro ASA of Norway, registered a slight increase in its production compared with that of 2012. The company produced 634,000 metric tons (t) of aluminum in 2013 compared with 627,971 t in 2012. The company imported its raw materials from Australia and Brazil. Despite the increase in production, sales revenue decreased owing to a decline in the price of aluminum. The company's local sales increased significantly by about 90%, however, owing to initiatives put in place by the Government to sustain local development of the downstream aluminum industry. Compared with those of 2012, Qatalum's total greenhouse gas emissions decreased by 20% in 2013 owing to the inauguration of an onsite power generation plant (Qatar Aluminium Ltd., 2014, p. 26, 29, 42; Aluminum Middle East, 2015).

Iron and Steel.—QASCO was the major iron and steel production company in Qatar. QASCO's production of DRI decreased modestly to 2.39 million metric tons (Mt) in 2013, from 2.42 Mt in 2012, whereas crude steel output increased to 2.2 Mt from 2.1 Mt in 2012. In 2013, QASCO's imports of iron ore decreased to 2.43 Mt from 2.71 Mt in 2012. In 2013, the company supplied nearly 97% of the local demand for rebar and met about 16% of the Gulf Cooperation Council's (GCC's) market needs. In 2013, QASCO started to supply customized rebar that was of a special length and high strength. Planned and unplanned shutdowns caused by both maintenance work and expansion operations affected the continuity of production at the QASCO plant, which led to an overall decrease in annual production. In 2013, QASCO continued work on its \$1.2 billion greenfield steel-melt shop, which was coded as EF 5. The melt shop, which was located near the company's main facility in the Mesaieed Industrial City, would increase the company's billet capacity by an additional 1.1 Mt/yr when the new melt shop opens in the beginning of 2014 (Peninsula, The, 2014; Qatar Steel Q.S.C., 2014, p. 8, 18, 22; World Steel Association, 2014, p. 2, 97, 105).

Industrial Minerals

Cement, Lime, and Limestone.—Qatar's cement production capacity increased to about 6.2 million metric tons per year (Mt/yr) in 2013, which was almost sufficient to meet the local market demand. Qatar National Cement Co. (QNCC) accounted for nearly 70% of cement production in Qatar in 2013; it produced about 3.4 Mt of clinker, which was a slight decrease from the previous year's production of 3.6 Mt/yr (Qatar National Cement Company Q.S.C., 2014, p. 5). Al Khalij

Cement Co. (a subsidiary of Qatari Investors Group) accounted for about 20% of the cement production in the country. Al Khalij Cement Co. produced 1,935 Mt of clinker in 2013, which was a 43% increase from that of 2012 (Qatari Investors Group, 2014, p. 23).

QNCC was exploring the possibilities for a new program to minimize the decline in lime production and sales. QNCC lime production, both calcined and hydrated, remained steady in 2013 at 14,400 t. QASCO planned to stop purchasing limestone from QNCC beginning in 2013 because QASCO was producing calcined limestone from its own plant, which had two kilns that each had the capacity to produce 275 metric tons per day of limestone (Qatar Steel Q.S.C., 2014, p. 8, 27; FMW Co., 2015).

QNCC was pursuing efforts to increase its cement production to respond to the projected expansion in the domestic construction market. The expected growth in Qatar's construction sector was based on the planned implementation of the QNV 2030 development plan, which was expected to double the domestic demand for cement in the next 3 years (Gibbon, 2014). In response to the projected growth, QNCC signed an agreement with FLSmidth of Denmark in 2013 to construct a new cement production line, which was expected to commence operations in 2015. The new line was projected to increase QNCC's capacity by 0.93 Mt/yr (Global Cement, 2013; Why Qatar Magazine, 2014).

Nitrogen.—In 2013, Qatar was the world's fourth-ranked urea producer. QAFCO was the sole producer of ammonia and urea in the country. QAFCO produced 3.6 Mt of ammonia from six ammonia production units in Mesaieed that had a combined capacity of 3.8 Mt, and produced 5.5 Mt of urea from six urea production units that had a combined capacity of 5.6 Mt. QAFCO consumed a notable portion of its ammonia to produce urea. QAFCO's urea exports represented 15% of the world trade, and its export markets included North America, Southeast Asia, Australia, and South Africa (table 2; Qatar Fertilizer Co. Q.S.C., 2014, p. 19).

Mineral Fuels and Related Materials

Helium.—Qatar was expected to become the world's second-ranked helium producer behind the United States in late 2013. RasGas, which was the major LNG producer in Qatar, commenced its second helium production plant, Qatar Helium 2, in June, and reached a capacity of 36 million cubic meters per year in October. The new production plant was expected to join Helium 1, which had a capacity of 20 million cubic meters per year to produce a total amount of 56 million cubic meters per year, and eventually to meet 25% of the annual global helium demand. RasGas invested in Qatar's North Field, which holds about 26% of the world's helium reserves. The global demand for helium increased by about 20% in the past decade. This demand was expected to increase by about 2% to 3% annually through 2030 (RasGas Company Ltd., 2013, 2014).

Natural Gas.—In 2013, Qatar's total natural gas production increased steadily. According to Qatar National Bank (QNB), at the current extraction rate, Qatar was projected to continue supplying the world natural gas market into the next century. Qatar produced about 184 million cubic meters of gross natural

gas in 2013 compared with about 163 million cubic meters in 2012. The country produced about 158 million cubic meters of dry gas in 2013, which was slightly higher than that of 2012. About 52% of the Qatari natural gas production went toward LNG exports. In 2013, Qatargas produced 41 million cubic meters of LNG from its four operational lines: Qatargas 1, Qatargas 2, Qatargas 3, and Qatargas 4. Asia received about 65% of Qatargas LNG exports in 2013, whereas Europe received 23%, leaving the United States and the Middle East at 6% each. Qatargas signed three 5-year agreements in 2013 to supply LNG to three different consumers starting in 2014. The first agreement was with E.ON SE of Germany, to which Qatargas would supply 1.5 million cubic meters of LNG annually. The second agreement was signed with PETRONAS LNG Ltd. of the United Kingdom, to which Qatargas would supply 1.1 million cubic meters per year of LNG. The third agreement was signed with Centrica p.l.c. of the United Kingdom, to which Qatargas would supply 1.5 million cubic meters per year of LNG (Qatargas Company Ltd., 2014, p. 11, 31–32). RasGas, which produced about 92 million cubic meters of LNG in 2013, operated Al Khaleej Gas Project (AKG) and used the North Field to supply about 48 million cubic meters of gas to domestic beneficiaries.

The Barzan Gas development project, which was a \$10.3 billion LNG investment project, was considered to be a crucial segment of the QNV 2030 strategy. QP, through its subsidiary Qatargas, held 93% of the joint venture with Exxon Mobil Corp. of the United States, which held the remainder of the stake through its subsidiary ExxonMobil Barzan. Upon completion in the next 2 years, the joint venture planned to appoint RasGas as the manager and the operator of the development project. The LNG Train 1 was expected to come onstream in late 2014, and LNG Train 2 was to follow in 2015; the Barzan gas plant would receive raw gas from a drilling platform that was located in Ras Laffan Industrial City about 80 kilometers inland. The project was projected to have the capacity to produce 39.62 million cubic meters per day of natural gas through processing the associated natural gas from the North Field, and then to supply natural gas to power stations and local ethane and petrochemical industries in Qatar by the end of 2014. RasGas continued to work on the LNG Train 1 phase of the project in 2013 to increase natural gas supplies to the domestic market. The objective of the project was to satisfy the country's consistent need for energy and to support the Government's efforts to expand the country's infrastructure and diversify the economy (Qatar National Bank S.A.Q., 2014, p. 6, 16, 20; Qatar Petroleum, 2014b, p. 18, 39–40, 48–49, 55–56).

Petroleum.—The volume of QP's crude oil, condensate, and NGL production increased slightly in 2013 compared with that of 2012. The country's total crude oil, condensate, and NGL production was about 2.0 million barrels per day (Mbb/d) in 2013, of which 0.7 Mbb/d was crude oil and the remainder was condensate and NGL. According to OPEC's latest statistics (in 2014), Qatar produced an average of 723,900 barrels per day (bbl/d) of crude oil in 2013, which was a slight decrease from the 733,600 bbl/d produced in 2012 (Organization of the Petroleum Exporting Countries, 2014b, p. 28). Oil exploration activity in Qatar continued, led by QP, although at a slower

pace than exploration in other GCC countries. Three fields—Al Shaheen, the Dukhan, and the Idd Al-Shargi fields—accounted for more than 85% of the country’s crude oil production capacity. The main crude streams in the country consisted of the Qatar Land, the Qatar Marine, and Al Shaheen. The Qatar Land and the Qatar Marine were both lighter crudes, whereas the Al Shaheen was slightly heavier. The Qatar Marine and Al Shaheen streams contained a higher sulfur percentage than the Qatar Land stream did (U.S. Energy Information Administration, 2014). Dukhan field, which was one of the largest oil and gas fields in Qatar, had about 323 oil-producing wells that QP used to produce and export crude oil through the Mesaieed terminal. The Dukhan field supplied condensates and NGL to the Mesaieed refinery. QP operated two offshore production stations—PS-2 and PS-3; both platforms produced crude oil, condensate, and natural gas (Qatar Petroleum, 2014b, p. 43, 46).

Refined Petroleum Products.—In 2013, QP operated the first phase of the Laffan refinery, which produced 38,000 bbl/d of gasoline, 21,600 bbl/d of kerosene, and 3,500 bbl/d of LPG. QP was expected to start the second phase of the Laffan refinery, which was expected to produce an additional 146,000 bbl/d of refined products, near the end of 2016. In 2013, QP and Royal Dutch Shell plc of the Netherlands operated Pearl 1 and Pearl 2, which were phases of the Pearl GTL plant project. The development of the \$19 billion project was completely funded by Royal Dutch Shell. The Pearl GTL plant had one of the largest natural-gas-processing trains in the world. In 2013, the plant produced 18.8 million barrels (Mbb) of condensate and 36.5 Mbb of GTL products, which was an increase of 22.8% and 27.6%, respectively, compared with that of 2012 (True, 2013; Qatar Petroleum, 2014b, p. 68–70, 73; Shell Global, 2014).

Outlook

A comprehensive look at the future of mineral industry and production trends in Qatar has to take into consideration the expected effect of implementing the national development plan and the economic diversification policy. The Government is set to concentrate on encouraging investments in the infrastructure, manufacturing, and transportation sectors to meet its objectives. This strategy would provide the framework to achieve short-term and long-term infrastructure-reinforcing projects in preparation for the 2022 FIFA World Cup tournament in Qatar. The development trend in the oil and natural gas sectors is likely to continue plateauing until the end of 2015, when the Barzan gas project is scheduled to reach its full capacity. The key driver of economic growth is expected to continue to be the non-oil industrial sector, as the domestic demand for such construction materials as cement and steel is projected to see a major boost within the next few years. An acceleration in the country’s internal energy demand is likely to be a reflection of the increasing need of the infrastructure projects for manufactured minerals.

References Cited

Aluminum Middle East, 2015, Middle East smelter fact files: Aluminum Middle East. (Accessed January 21, 2015, at <http://www.aluminium-middleeast.com/Portal/middle-east-smelter-fact-files.aspx>.)

- Apodaca, L.E., 2014, Sulfur: U.S. Geological Survey Mineral Commodity Summaries 2014, p. 156–157.
- B.P. p.l.c., 2014, BP statistical review of world energy (63d ed.): B.P. p.l.c., June, 45 p. (Accessed November 21, 2014, at <https://www.bp.com/content/dam/bp/pdf/Energy-economics/statistical-review-2014/BP-statistical-review-of-world-energy-2014-full-report.pdf>.)
- FMW Co., 2015, Limestone preparation plant for Qatar steel, Doha: FMW Co. press release. (Accessed January 21, 2015, at <http://www.fmw.co.at/CurrentEvents/Press/15/en>.)
- Gibbon, Gavin, 2014, Cement demand in Qatar to double in three years: Construction Week Online, April 16. (Accessed November 25, 2014, at <http://www.constructionweekonline.com/article-27619-cement-demand-in-qatar-to-double-in-three-years/>.)
- Global Cement, 2013, FLSmidth to supply QNCC cement plant: Global Cement, November 29. (Accessed December 6, 2014, at <http://www.globalcement.com/news/item/2117-flsmidth-to-supply-qncc-cement-plant>.)
- Industries Qatar Q.S.C., 2014, Annual report 2013: Industries Qatar Q.S.C., 22 p. (Accessed November 28, 2014, at [http://www.iq.com.qa/IQ/IQ.nsf/en_Pages/en_InvestorAffairs_Downloads/\\$File/IQEnglishAnnualReport2013-Website.pdf](http://www.iq.com.qa/IQ/IQ.nsf/en_Pages/en_InvestorAffairs_Downloads/$File/IQEnglishAnnualReport2013-Website.pdf).)
- International Energy Agency, 2014, 2014 key world energy statistics: International Energy Agency, 80 p. (Accessed December 29, 2014, at <http://www.iea.org/publications/freepublications/publication/KeyWorld2014.pdf>.)
- International Monetary Fund, 2014, Qatar 2014 article IV consultation: International Monetary Fund Country Report no. 14/108, May, 37 p. (Accessed November 22, 2014, at <https://www.imf.org/external/pubs/ft/scr/2014/cr14108.pdf>.)
- Office of the United States Trade Representative, 2014, U.S.—Qatar trade facts: Office of the United States Trade Representative. (Accessed November 21, 2014, at <http://www.ustr.gov/countries-regions/europe-middle-east/middle-east/north-africa/qatar>.)
- Organization of the Petroleum Exporting Countries, 2014a, Qatar facts and figures: Organization of the Petroleum Exporting Countries. (Accessed December 29, 2014, at http://www.opec.org/opec_web/en/about_us/168.htm.)
- Organization of the Petroleum Exporting Countries, 2014b, Annual statistical bulletin—2014: Organization of the Petroleum Exporting Countries, 112 p. (Accessed November 28, 2014, at http://www.opec.org/opec_web/static_files_project/media/downloads/publications/ASB2014.pdf.)
- Peninsula, The, 2014, IQ plans QR5.4 billion capital expenditure over five years: The Peninsula [Doha, Qatar], February 17. (Accessed January 21, 2015, at <http://thepeninsulaqatar.com/business/qatar-business/272754/iq-plans-qr5-4bn-capital-expenditure-over-five-years>.)
- Perumal, S.V., 2014, Qatar trade surplus drops 4% as imports jump: Gulf Times [Doha, Qatar], January 2. (Accessed November 28, 2014, at <http://www.gulf-times.com/business/191/details/376455/qatar-trade-surplus-drops-4%25-as-imports-jump>.)
- Qatar Aluminium Ltd., 2014, Qatalum sustainability report 2013: Qatar Aluminium Ltd., 58 p. (Accessed December 1, 2014, at <https://www.qatalum.com/Lists/Publications/Sustainability%20report-2013/flipebook.html>.)
- Qatar Central Bank, 2014, Foreign capital investment: Qatar Central Bank. (Accessed December 29, 2014, at <http://www.qcb.gov.qa/English/Legislation/Law/Pages/ForeignCapitalInvestment.aspx>.)
- Qatar Fertilizer Co. Q.S.C., 2014, QAFCO annual report 2013: Qatar Fertilizer Co. Q.S.C., 15 p. (Accessed November 28, 2014, at <http://www.qafco.qa/Satellite?blobcol=urldata&blobheader=application%2Fpdf&blobheadername1=Content-Disposition&blobheadername2=MDT-Type&blobheadervalue1=inline%3B+filename%3DQafco++Annual+Report+2013+-+English.pdf&blobheadervalue2=abinary%3B+charset%3DUTF-8&blobkey=id&blobtable=MungoBlobs&blobwhere=1372605372053&ssbinary=true>.)
- Qatargas Company Ltd., 2014, Sustainability report 2013: Qatargas Company Ltd., 82 p. (Accessed December 2, 2014, at <http://www.qatargas.com/English/CorporateCitizenship/Documents/SUSTAINABILITY%20REPORT%20SP%2006052014.pdf>.)
- Qatari Investors Group, 2014, 2013 annual report: Qatari Investors Group, 37 p. (Accessed November 24, 2014, at http://www.qatariinvestors.com/media/55764/qig_annual_2013_english.pdf.)
- Qatar Ministry of Development Planning and Statistics, 2013, Qatar economic outlook 2013–2014 update: Qatar Ministry of Development Planning and Statistics, December 5, 27 p. (Accessed December 29, 2014, at http://www.gsdp.gov.qa/portal/page/portal/gsdp_en/knowledge_center/Tab2/QEO2013–2014%20Update_withCLICKS.pdf.)

- Qatar Ministry of Development Planning and Statistics, 2014, Annual bulletin on foreign merchandise trade 2013: Qatar Ministry of Development Planning and Statistics, 44 p. (Accessed December 1, 2014, at http://www.qsa.gov.qa/eng/publication/economic_publication/ForeignTrade/Foreign_Trade_Statistics_MDPS_AnBu_E_2013.pdf.)
- Qatar National Bank S.A.Q., 2014, Qatar economic insight, September 2014: Qatar National Bank S.A.Q., September. (Accessed November 21, 2014, at <http://www.qnb.com.qa/cs/Satellite?blobcol=urldata&blobheader=application%2Fpdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1355505319193&sbinary=true>.)
- Qatar National Cement Company Q.S.C., 2014, Annual report 2013: Qatar National Cement Company Q.S.C., 21 p. (Accessed December 30, 2014, at <http://qatarcement.com/eng/annual.html>.)
- Qatar Petroleum, 2014a, QP operations: Qatar Petroleum. (Accessed December 29, 2014, at <https://www.qp.com.qa/en/QPActivities/QPOperations/Pages/QPOperations.aspx>.)
- Qatar Petroleum, 2014b, Annual report 2013: Qatar Petroleum, 115 p. (Accessed November 20, 2014, at <http://www.qp.com.qa/en/MediaCentre/Lists/QPPublications/Attachments/5/2013%20Annual%20Report%20English-2013.pdf>.)
- Qatar Steel Q.S.C., 2014, Sustainability report 2013: Qatar Steel Q.S.C., 83 p. (Accessed November 21, 2014, at <http://www.qatarsteel.com.qa/Publications/SiteAssets/QatarSteelSustainabilityReport2013.pdf>.)
- RasGas Company Ltd., 2013, Media: RasGas Company Ltd., December 11. (Accessed December 30, 2014, at http://www.rasgas.com/media/press_he2inauguration.html.)
- RasGas Company Ltd., 2014, Helium—A versatile element: RasGas Company Ltd. (Accessed December 1, 2014, at <http://www.Rasgas.com/operations/RasLAffanHeliumProject.html>.)
- Said, Waiel, 2014, Qatar introduces the customs clearance single window: WCO News, no. 73, February, p. 32–33. (Accessed December 29, 2014, at <http://www.wcoomd.org/en/media/wco-news-magazine/previous.aspx>.)
- Shell Global, 2014, Pearl GTL—An overview: Royal Dutch Shell p.l.c. (Accessed December 30, 2014, at <http://www.shell.com/global/aboutshell/major-projects-2/pearl/overview.html>.)
- True, W.R., 2013, Qatargas lets contract for Laffan refinery expansion: Oil & Gas Journal, October 9. (Accessed December 2, 2014, at <http://www.ogj.com/articles/2013/10/Qatargas-lets-contract-for-laffan-refinery-expansion.html>.)
- U.S. Department of State, 2014, Executive summary—Qatar: U.S. Department of State, 2014, 26 p. (Accessed December 29, 2014, at <http://www.state.gov/documents/organization/231068.pdf>.)
- U.S. Energy Information Administration, 2014, Qatar—Country analysis: U.S. Energy Information Administration, January 30. (Accessed December 20, 2014, at <http://www.eia.gov/countries/cab.cfm?fips=qa>.)
- Why Qatar Magazine, 2014, Qatar’s construction sector cements its position: Why Qatar Magazine, May 8. (Accessed November 24, 2014, at http://whyqatar.me/article-desc-811_qatars-construction-sector-cements-its-position.)
- World Bank, The, 2014a, MENA data book: The World Bank, September, 102 p. (Accessed November 21, 2014, at http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2014/10/06/000442464_20141006095424/Rendered/PDF/911760PUB0Box30ALITTLEDATABOOKLATES.pdf.)
- World Bank, The, 2014b, Economy profile 2015—Qatar, in *Doing business 2015—Going beyond efficiency* (12th ed.): Washington, DC, World Bank Group, 90 p. (Accessed November 21, 2014, at <http://www.doingbusiness.org/~media/giawb/doing%20business/documents/profiles/country/QAT.pdf>.)
- World Trade Organization, 2014, Trade policy review—Qatar: World Trade Organization, March 18, 87 p. (Accessed December 3, 2014, at http://www.wto.org/english/tratop_e/tp_r_e/s296_e.pdf.)
- World Steel Association, 2014, Steel statistical yearbook 2014: World Steel Association, November, 125 p. (Accessed November 24, 2014, at http://www.worldsteel.org/dms/internetDocumentList/bookshop/2014/SSY14_Web/document/Steel%20Statistical%20Yearbook%202014.pdf.)

TABLE 1
QATAR: PRODUCTION OF MINERAL COMMODITIES¹

(Thousand metric tons unless otherwise specified)

Commodity ²	2009	2010	2011	2012	2013	
METALS						
Aluminum	10	126	487 ^r	628 ^r	634	
Iron and steel:						
Direct-reduced iron	2,096	2,157	2,230	2,420	2,386	
Semimanufactures:						
Billet, cast	1,448	1,946	2,005	2,105	2,205	
Bars, rolled	1,468	1,650	1,819	1,910	2,000	
Steel, crude	1,566	1,705	2,000	2,100	2,236	
INDUSTRIAL MINERALS						
Calcium carbonate	--	--	--	75	17	
Cement, all types	4,100	4,000	5,000	5,500	5,335	
Gypsum ^c	135	135	135	145	145	
Lime	55	95	100	110	120	
Nitrogen fertilizer:						
N content of ammonia	1,828	1,883	1,919	2,665	2,985	
N content of urea	1,380	1,384	1,480	2,095	2,535	
Sand, washed	7,500	7,600	6,000	4,100 ^r	4,700	
Stone, limestone ^c	2,220	1,674 ³	2,000	2,200	2,200	
Sulfur	658	850	850	820	820	
Sulfuric acid ^c	10	10	10	10	10	
MINERAL FUELS AND RELATED MATERIALS						
Gas, natural:						
Gross	million cubic meters	102,800	136,251	150,016	163,025	183,698
Dry	do.	89,300	131,165	145,271	157,050	158,500
Helium ^c	do.	20	20	20	20	38
Methanol		1,042	879	1,022	983	1,000
Natural gas liquids	thousand 42-gallon barrels	80,300	80,300	85,000	81,375	81,375
Petroleum:						
Crude and condensates	do.	490,925	572,685	670,140	717,590	728,175
Refinery products:						
Liquefied petroleum gas	do.	70,482	112,092	118,552	118,552	130,500
Gasoline	do.	13,930	16,291	15,878	15,500	13,870
Kerosene and jet fuel	do.	10,900	8,979	8,405	8,405	7,884
Distillate fuel oil	do.	11,607	10,038	10,000	11,660	8,139
Residual fuel oil	do.	1,533	1,752	1,350	1,378	2,299
Other	do.	17,848	11,534	10,585	7,811	9,198
Total	do.	126,300	160,686	164,770	163,306	171,889

^cEstimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. ^rRevised. do. Ditto. -- Zero.

¹Table includes data available through November 26, 2014.

²In addition to the commodities listed, clays, dolomite, sand and gravel, and shale are produced; however, available information is inadequate to make reliable estimates of output.

³Reported.

TABLE 2
QATAR: STRUCTURE OF THE MINERAL INDUSTRY IN 2013

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Aluminum	Qatar Aluminium Ltd. (QATALUM) [Qatar Petroleum (QP), 50%, and Norsk Hydro ASA, 50%]	Smelter at Mesaieed	625
Cement:			
Portland	Qatar National Cement Co. (QNCC) (Government, 43%, and private Qatari investors, 57%)	4 kilns and 4 mills at Umm Bab	4,400
Do.	Al-Jabor Cement Industries Co. (Al Jabor Holdings, 75%, and Holcim Group, 25%)	2 clinker grinding mills at Mesaieed	900
White	Qatari Saudi Company for Industrial Transformation	do.	165
Calcium carbonate	Qatar National Cement Co. (QNCC) (Government, 43%, and private Qatari investors, 57%)	Umm Bab, 82 kilometers west of Doha	75
Gypsum	Qatari Saudi Company for Gypsum [Qatar Industrial Manufacturing Co., 33.375%; Qatar National Cement Co. (QNCC), 33.250%; National Gypsum Co., 33.375%]	Salwa Industrial Area	135
Helium	million cubic meters Joint venture of Qatar Liquefied Gas Co. Ltd. I (Qatargas I), Ras Laffan Liquefied Natural Gas Co. Ltd. (RasGas), and Ras Laffan Liquefied Natural Gas Co. Ltd. (II) (RasGas II)	Ras Laffan	56
Iron and steel:			
Iron, direct reduced	Qatar Steel Co. Q.S.C. [Industries Qatar Q.S.C. (IQ), 100%]	Mesaieed	2,400
Steel, crude	do.	Plant at Mesaieed	2,200
Steel, rolled	do.	Rolling mill at Mesaieed	1,440
Lime	Qatar National Cement Co. (QNCC) (Government, 43%, and private Qatari investors, 57%)	Kilns at Umm Bab	15
Do.	Qatar Steel Co. Q.S.C. [Industries Qatar Q.S.C. (IQ), 100%]	Mesaieed	200
Limestone	do.	Umm Bab	75
Methanol	Qatar Fuel Additives Co. Ltd. Q.S.C. (QAFAC) (Industries Qatar Q.S.C., 50%; OPIC Netherlands Antilles N.V., 20%; Lee Chang Yung Chemical Industry Corp., 15%; International Octane Ltd., 15%)	Mesaieed	1,000
Natural gas:			
Extracted	billion cubic meters Qatar Petroleum (QP) (Government, 100%)	Al Khaleej field	8
Do.	do.	North field	20
Do.	do.	North field Alpha	10
Liquefied	Qatar Liquefied Gas Co. Ltd. 1 (Qatargas 1) [Qatar Petroleum (QP), 65%; Total S.A., 10%; ExxonMobil Qatar Inc., 10%; Mitsui & Co., Ltd., 7.5%; Marubeni Corp., 7.5%]	Three trains at Ras Laffan	10,200
Do.	Qatar Liquefied Gas Co. Ltd. 2 (Qatargas 2) [Qatar Petroleum (QP), 70%, and ExxonMobil Qatar Inc., 30%]	Train 4 at Ras Laffan	7,800
Do.	Qatar Liquefied Gas Co. Ltd. 2 (Qatargas 2) [Qatar Petroleum (QP), 65%; ExxonMobil Qatar Inc., 18.3%; Total S.A., 16.7%]	Train 5 at Ras Laffan	7,800
Do.	Qatar Liquefied Gas Co. Ltd. 3 (Qatargas 3) [Qatar Petroleum (QP), 68.5%; ConocoPhillips Co., 30%; Mitsui & Co. Ltd., 1.5%]	Train 6 at Ras Laffan	7,800
Do.	Qatar Petroleum Qatar Gas (4) Co. Ltd. (Qatargas 4) [Qatar Petroleum (QP), 70%, and Royal Dutch Shell plc, 30%]	Train 7 at Ras Laffan	7,800
Do.	Ras Laffan Liquefied Natural Gas Co. Ltd. (RasGas) [Qatar Petroleum (QP), 63%; ExxonMobil Qatar Inc., 25%; Korea Gas Corp., 5%; Itochu Corp., 4%; LNG Japan Corp., 3%]	Trains 1 and 2 at Ras Laffan	6,600
Do.	Ras Laffan Liquefied Natural Gas Co. Ltd. 2 (RasGas 2) [Qatar Petroleum (QP), 70%, and ExxonMobil Qatar Inc., 30%]	Trains 3, 4, and 5 at Ras Laffan	14,300
Do.	Ras Laffan Liquefied Natural Gas Co. Ltd. 3 (RasGas 3) [Qatar Petroleum (QP), 70%, and ExxonMobil Qatar Inc., 30%]	Trains 6 and 7 at Ras Laffan	15,600
Nitrogen:			
Ammonia	Qatar Fertilizer Co. S.A.Q. (QAFCO) [Industries Qatar Q.S.C. (IQ), 75%, and Yara Netherland BV, 25%]	QAFCO 1, Mesaieed	900
Do.	do.	QAFCO 2, Mesaieed	900
Do.	do.	QAFCO 3, Mesaieed	1,500

See footnotes at end of table.

TABLE 2—Continued
QATAR: STRUCTURE OF THE MINERAL INDUSTRY IN 2013

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Nitrogen—Continued:				
Ammonia—Continued		Qatar Fertilizer Co. S.A.Q. (QAFCO) [Industries Qatar Q.S.C. (IQ), 75%, and Yara Netherland BV, 25%]	QAFCO 4, Mesaieed	2,000
Do.		do.	QAFCO 5, Mesaieed	2,000
Do.		do.	QAFCO 6, Mesaieed	2,000
Urea		do.	QAFCO 1, Mesaieed	1,000
Do.		do.	QAFCO 2, Mesaieed	1,000
Do.		do.	QAFCO 3, Mesaieed	2,000
Do.		do.	QAFCO 4, Mesaieed	3,200
Do.		do.	QAFCO 5, Mesaieed	3,850
Do.		do.	QAFCO 6, Mesaieed	3,850
Petroleum:				
Crude	42-gallon barrels per day	Maersk Oil Qatar A.S., operator ¹	Al Shaheen field, offshore	330,000
Do.	do.	Qatar Petroleum (QP) (Government, 100%)	Dukhan field, onshore	256,000
Do.	do.	do.	Bul Hanine field, offshore	37,000
Do.	do.	Occidental Petroleum Corp., operator ¹	Idd Al Shargi, North Dome and South Dome, offshore	113,000
Do.	do.	do.	Al Rayyan, offshore	8,600
Do.	do.	United Petroleum Development Co. Ltd. (Bunduq Oil Production Co. Ltd, 97%, and BP p.l.c., 3%)	El Bunduq ²	7,300
Do.	do.	Total E&P Qatar Ltd., operator ¹	Al Khaleej, offshore	37,500
Do.	do.	do.	Maydan Mahzam field, offshore	36,000
Do.	do.	Qatar Petroleum Development Co. operator ¹ (Cosmo Oil Co., Nissho Iwai Corp., United Petroleum Development Co.)	Al Karkara and A Structure	6,200
Refined	do.	Qatar Petroleum Refinery [Qatar Petroleum (QP), 100%]	Umm Said	200,000
Do.	do.	The Laffan Refinery Co. Ltd. [Qatar Petroleum (QP), 51%; Cosmo Oil Co., 10%; Exxon Mobil Corp., 10%; Idemitsu Kosan Co. Ltd., 10%; Mitsui and Co., 4.5%; Marubeni Corp. 4.5%]	Ras Laffan	146,000
Do.	do.	Oryx GTL Ltd. [Qatar Petroleum (QP), 51%, and Sasol Ltd., 49%]	do.	12,400
Sand, washed		Qatar National Cement Co. (QNCC) (Government, 43%, and private Qatari investors, 57%)	Umm Bab	10,000
Do.		Qatar Sand Treatment Plant (Qatar Industrial Manufacturing Co. (Q.S.C.))	do.	1,000
Sulfur:				
Elemental		Ras Laffan Liquefied Natural Gas Co. Ltd. (RasGas)	do.	400
Do.		Qatar Petroleum (QP) (Government, 100%)	Mesaieed	100
Do.		Qatar Petrochemical Co. Ltd. Q.S.C. (QAPCO)	Umm Said	100
Do.		Qatar Liquefied Gas Co. Ltd. Q.S.C. (Qatargas)	Ras Laffan	300
Sulfuric acid		Qatar Industrial Manufacturing Co. (Q.S.C.)	Mesaieed	11

Do., do. Ditto.

¹Operated under a development and production-sharing agreement with Qatar Petroleum.

²El Bunduq field is located on the border between Qatar and the United Arab Emirates. Royalties are shared by the Governments.