



2012 Minerals Yearbook

KUWAIT

THE MINERAL INDUSTRY OF KUWAIT

By Philip M. Mobbs

Kuwait's economy was dominated by the production and refining of hydrocarbons. In 2012, crude oil exports accounted for about 95% of total exports and about 94% of Government revenue. In 2011 (the latest year for which such data were available), the crude oil and natural gas sector accounted for 36% of the gross domestic product (GDP) at year 2000 constant producer prices compared with 33% in 2010. Petroleum refining activity accounted for about 3.3% of the GDP in 2011 compared with 3.6% in 2010. The construction sector accounted for about 2% of real GDP in 2011, and the mining and quarrying sector accounted for 0.1% of real GDP in 2011. Total real GDP in 2011 was \$73.5 billion compared with about \$67 billion in 2010 (Central Bank of Kuwait, 2013, tables A, 49).

Under Article 21 of the Constitution, the state owns all natural resources. Article 152 of the Constitution authorizes limited-time-period concessions for the exploitation of natural resources. Decree law No. 6 of 1980 authorizes Kuwait Petroleum Corp. (KPC) to form partnerships with other companies to conduct petroleum sector activity. Environmental issues (including those associated with the manufacturing of aluminum, gold, and steel articles; cement production and storage; and the exploration for and production, storage, and transport of natural gas, petroleum, and sand) are covered by law No. 21 of 1995, law No. 16 of 1996, and decision No. 210 of 2001.

In 2012, total exports were valued at about \$119 billion¹ compared with a revised \$102 billion in 2011, of which crude oil exports accounted for about \$113 billion in 2012 compared with about \$97 billion in 2011, and nitrogen fertilizer exports accounted for \$449 million in 2012 compared with a revised \$525 million in 2011. The total value of imports in 2012 was about \$26 billion compared with \$25 billion in 2011 (Central Bank of Kuwait, 2013, tables 22, 35, 40).

Production

Data on estimated mineral commodity production are in table 1.

Structure of the Mineral Industry

KPC, the Ministry of Oil, and the Supreme Petroleum Council are the Government organizations that are responsible for the petroleum sector in Kuwait. The following KPC subsidiaries were the leading companies in the domestic petroleum sector: Kuwait Oil Co. K.S.C. (KOC), which managed the country's crude oil and natural gas operations; Kuwait Gulf Oil Co., which managed primarily offshore crude oil and natural gas operations in the Partitioned Neutral Zone between Kuwait

and Saudi Arabia, which also is known as the Divided Zone; Petrochemical Industries Co. K.S.C., which dominated the Kuwaiti fertilizer-manufacturing sector; and Kuwait National Petroleum Co. K.S.C. (KNPC), which operated the country's petroleum refineries. State-owned Kuwait Investment Authority held interests in Kuwaiti cement companies and manufacturers of steel pipe. Privately owned companies were active in the industrial minerals and metals sectors.

Commodity Review

Metals

Iron and Steel.—After a review of issues associated with the export of scrap metal, the Ministry of Commerce and Industry announced that a ban on the export of steel scrap would begin in January 2013. The ban was expected to help local steel producers, who would be able to obtain more locally produced scrap. Scrap traders subsequently obtained a delay in the implementation of the ban until April 2013. A previous ban on scrap metal exports, which was instituted in 2003, had been removed in 2009 (Global Trade Alert, 2009; Asian Metal, 2013).

Mineral Fuels

Petroleum and Natural Gas.—KNPC planned to complete the installation of the fourth natural gas train at the Mina Al-Ahmadi refinery by 2014. The new gas train was expected to process about 23 million cubic meters per day of natural gas and to recover more than 100,000 barrels per day (bbl/d) of condensate. An additional tank farm was proposed to store the condensate and liquefied petroleum gases prior to export. In 2012, the Supreme Petroleum Council approved the construction of a 615,000-bbl/d-capacity oil refinery at Al-Zour and a \$16.7 billion clean fuels project. As part of the clean fuels project, the operations of the 466,000-bbl/d-capacity Mina Al-Ahmadi and the 270,000-bbl/d-capacity Mina Abdullah refineries could be combined and expanded to form a single 800,000-bbl/d-capacity refinery (Kuwait National Petroleum Co. K.S.C., 2011a, b; 2012, p. 25–26).

Outlook

Implementation of infrastructure projects, which were proposed in 2010 as part of the Kuwait Development Plan, would significantly increase domestic demand for aggregate, cement, electrical power, glass, sand, and steel in the next few years. The development of known nonassociated natural gas deposits and the use of domestically produced natural gas to fuel new electricity-generating powerplants also could provide power for other proposed industrial diversification and expansion projects in Kuwait and shift the volume of petroleum

¹Where necessary, values have been converted from Kuwaiti dinars (KWD) to U.S. dollars (US\$) at the average rate of KWD0.27996=US\$1.00 for 2012, KWD0.27606=US\$1.00 for 2011, and KWD0.28669=US\$1.00 for 2010.

products currently (2012) used to fuel electricity-generating powerplants to the export market. The ongoing expansion of the Kuwaiti petroleum production capacity (subject to the Organization of the Petroleum Exporting Countries' crude oil production allocation) is expected to continue.

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TABLE 1
KUWAIT: ESTIMATED PRODUCTION OF MINERAL COMMODITIES^{1,2}

(Metric tons unless otherwise specified)

Commodity ³	2008	2009	2010	2011	2012
Cement	2,200,000	2,000,000	2,000,000	2,250,000	2,250,000
Iron and steel:					
Crude	500,000	450,000	500,000	800,000 ^r	1,300,000
Rolled-steel bar	680,000	600,000	650,000	1,100,000 ^r	1,300,000
Lime, hydrated and quicklime	50,000	45,000	50,000	50,000	50,000
Natural gas: ⁴					
Gross million cubic meters	14,800	13,000	13,500	16,000 ^r	17,000
Dry do.	12,800	11,200	11,600	13,500 ^r	14,500
Nitrogen:					
N content of ammonia	490,000	470,000	380,000	520,000	470,000
N content of urea	430,000	450,000	340,000	460,000	420,000
Petroleum:					
Crude ⁴ thousand 42-gallon barrels	990,000	880,000	950,000	1,000,000	1,100,000
Natural gas liquids and liquefied petroleum gases do.	57,000	54,000	54,000	63,000 ^r	68,000
Refinery products:					
Gasoline (motor), naphtha, and reformat do.	80,000 ^r	78,000 ^r	78,000 ^r	79,000 ^r	76,000
Kerosene do.	64,000 ^r	62,000 ^r	65,000 ^r	63,000 ^r	62,000
Distillate fuel oil do.	93,000 ^r	95,000 ^r	89,000 ^r	93,000 ^r	88,000
Residual fuel oil do.	71,000 ^r	74,000 ^r	69,000 ^r	68,000 ^r	64,000
Other ⁵ do.	26,000 ^r	26,000 ^r	26,000 ^r	26,000 ^r	26,000
Total, including refinery gains and loses do.	348,000 ^r	344,000 ^r	335,000 ^r	340,000 ^r	325,000
Salt	14,000	13,000	14,000	15,000	15,000
Sulfur:					
Elemental, petroleum byproduct	830,000	800,000	820,000	830,000	800,000
Sulfuric acid	18,000	17,000	18,000	18,000	18,000

^rRevised. do. Ditto.

¹Estimated data are rounded to no more than three significant digits; may not add to totals shown.

²Table includes data available through June 7, 2013.

³In addition to commodities listed, secondary aluminum, chlorine, clays, glass, gypsum, methanol, and sand and gravel were produced, but available information is inadequate to make reliable estimates of output.

⁴Includes Kuwait's share of production from the Partitioned Neutral Zone.

⁵Includes bitumen and petroleum coke.

TABLE 2
KUWAIT: STRUCTURE OF THE MINERAL INDUSTRY IN 2012

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Aluminum, secondary		Arabian Light Metals Co. K.S.C. (Kuwait Industries Co. Holding K.S.C.)	Ahmadi	NA
Cement:				
Clinker		Kuwait Cement Co. K.S.C. (Kuwait Investment Authority, 32%, and National Industries Group, 22.4%)	Kiln at Shuaiba	1,800,000
Do.		ACICO Industries Co. K.S.C.	do.	1,000,000
Gray portland		Kuwait Cement Co. K.S.C. (Kuwait Investment Authority, 32%, and National Industries Group, 22.4%)	Mill at Shuaiba	2,200,000
Do.		ACICO Industries Co. K.S.C.	do.	1,000,000
Do.		Hilal Cement Co. K.S.C.C. (Suez Cement Co., 51%)	Sulaibiya industrial area	(1)
Do.		Kuwait Portland Cement Co. K.S.C.C.	Shuwaikh	(1)
White		Kuwait Cement Co. K.S.C. (Kuwait Investment Authority, 32%, and National Industries Group, 22.4%)	Kiln and mill at Shuaiba	170,000
Iron and steel, steel:				
Crude		Al Oula Steel Manufacturing Co. K.S.C.	Shuaiba	500,000
Do.		United Steel Industrial Co. K.S.C.C. (Joint venture of local investors and Ahwaz Steel Commercial and Technical Services GmbH)	Melt shop at Shuaiba	1,000,000
Rolled:				
Bar and rod		do.	Rolling mill at Shuaiba	1,200,000
Do.		Kuwait Reinforcement Steel Manufacturing Co. (Ali Al-Sarraf International Group Co.)	do.	400,000
Pipes		Kuwait Pipes Industries and Oil Services Co. K.S.C.	Pipe mill at Sulaibiya industrial area	120,000
Do.		do.	Pipe mill at Shuwaikh	65,000
Liquefied natural gas	million cubic meters per day	Kuwait National Petroleum Co. K.S.C. (KNPC) [Kuwait Petroleum Corp. (KPC), 100%]	Mina Al-Ahmadi GasPort® import facility, Mina Al-Ahmadi	17 ²
Natural gas	million cubic meters	Various ³	Various fields	17,000
Natural gas liquids		Kuwait Oil Co. K.S.C. (KOC) [Kuwait Petroleum Corp. (KPC), 100%]	do.	65,000 ⁴
Nitrogen:				
Ammonia		Petrochemical Industries Co. K.S.C. [Kuwait Petroleum Corp. (KPC), 100%]	Plant B, Shuaiba	657,000
Urea		do.	Plants A and B, Shuaiba	1,000,000
Petroleum:				
Coke, calcined		do.	Shuaiba	350,000
Crude	42-gallon barrels per day	Kuwait Oil Co. K.S.C. (KOC) [Kuwait Petroleum Corp. (KPC), 100%]	Southern and eastern fields (Burgan, Khasman, and Madina fields)	1,350,000
Do.	do.	Al-Khafji Joint Operations (Kuwait Gulf Oil Co., 50%, and Aramco Gulf Operations Co., 50%)	Khafji field, offshore Partitioned Neutral Zone	600,000
Do.	do.	Kuwait Oil Co. K.S.C. (KOC) [Kuwait Petroleum Corp. (KPC), 100%]	Northern fields (Abdali, Bahra, Ratqa, Matraba, Raudhatain, and Sabiya fields)	559,000
Do.	do.	do.	Western fields (Abdaliya, Kra' Al-Mero, Managish, and Umm Gudair fields)	427,000
Do.	do.	do.	South Fuwaris and South Umm Gudair fields, onshore Partitioned Neutral Zone	80,000

See footnotes at end of the table.

TABLE 2—Continued
 KUWAIT: STRUCTURE OF THE MINERAL INDUSTRY IN 2012

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Petroleum—Continued:				
Crude—Continued	42-gallon barrels per day	Kuwait Oil Co. K.S.C. (KOC) [Kuwait Petroleum Corp. (KPC), 100%] and Saudi Arabian Chevron Inc. (Chevron Corp., 100%)	Wafra field, onshore Partitioned Neutral Zone	80,000
Do.	do.	Kuwait Gulf Oil Co. [Kuwait Petroleum Corp. (KPC), 100%]	Hout field, offshore Partitioned Neutral Zone	NA
Refined products	do.	Kuwait National Petroleum Co. K.S.C. (KNPC) [Kuwait Petroleum Corp. (KPC), 100%]	Mina Al-Ahmadi refinery	466,000
Do.	do.	do.	Mina Abdullah refinery	270,000
Do.	do.	do.	Shuaiba refinery	200,000
Salt		Al Kout Industrial Projects Co.	Shuaiba	NA
Sulfur		Kuwait National Petroleum Co. K.S.C. (KNPC) [Kuwait Petroleum Corp. (KPC), 100%]	Mina Abdullah, Mina Al-Ahmadi, and Shuaiba refineries	NA
Do.		Kuwait Sulphuric Acid Co.	Safat	18,000

Do., do. Ditto. NA Not available.

¹Marketed imported bulk cement.

²Seasonal operations, typically April through October.

³Some natural gas is produced and recovered from most crude oil production operations in Kuwait and the Partitioned Neutral Zone. Nonassociated natural gas was produced from the Sabriyah field.

⁴Includes refinery-produced liquefied petroleum gases.