THE MINERAL INDUSTRIES OF

THE MIDDLE EAST

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The 15 nations in the Middle East covered in this volume were home to 164 million people and encompass a land area of 6.2 million square kilometers. The Governments of most Middle Eastern nations continued to encourage foreign and private interests in mineral development. Iran's parliament ratified a new mining law and proposed privatization of a number of mineral industry operations. In Saudi Arabia, the Government created the Saudi Arabian Mining Co.-MA'ADEN.

In 1997, petroleum continues to be the most important mineral commodity for most of the countries in the region and remained for the most part, under Government control. In contrast to petroleum, the petrochemical industry, a major force in the Middle East, was largely open to private investment. In the case of nonfuel mineral commodities, two Middle Eastern countries were considered to be major import sources for the U.S. mineral industry—Israel for gemstones and Turkey for ferrochromium. At 472 million barrels (Mbbl), Saudi Arabia was the third leading supplier of crude oil to the United States, trailing only Venezuela (509 Mbbl) and Mexico (496 Mbbl); Kuwait (92 Mbbl) was the ninth largest crude oil supplier to the United States.

Hydrocarbon exploration continued in Iran, Israel, Jordan, Oman, Saudi Arabia, Syria, Turkey, the United Arab Emirates, and Yemen. New fields came on-stream in Turkey and Yemen. In accordance with the United Nations Resolution 986, Iraq resumed limited oil exports in August with the larger share of the oil transiting through Turkey. Iran opened the long-awaited Bandar Abbas oil refinery during the year, with full capacity of 232,000 barrels per day (bbl/d) expected to be reached in 1998. Iran also opened a 4-billion-cubic-meters-per-year pipeline to bring natural gas into the northern part of the country from Turkmenistan. In Qatar, the second liquefied natural gas train at Qatar Liquefied Gas Co. was commissioned. An 80,000-bbl/d oil refinery came on-stream in Sharjah, United Arab Emirates.

The region's petrochemical industry is growing rapidly. In Kuwait, a $2 billion petrochemical complex at Shuayba opened in September with Government equity at 45%. A number of Saudi Arabian petrochemical complexes, under new construction or expansion, will come on-stream between 1997 and 2000, increasing the country's petrochemical production to 28 million metric tons per year.

Developments in the aluminum sector included Aluminium Bahrain's 35,000-metric-ton per-year (t/yr)-smelter-capacity expansion, raising capacity to nearly 500,000 t/yr; the commissioning of the 110,000-t/yr capacity Al-Mahdi aluminum smelter in Iran; and the addition of 130,000-t/yr-capacity reduction cells by Dubai Aluminum Co. Ltd. Other Middle Eastern metal operations included the development of an open-pit copper mine at Meiduk and a new copper smelter in Khatounabad, both in Iran; the installation of an 850,000-t/yr rolling mill, as Saudi Iron and Steel Co. continued its expansion; and the development of the Al-Amar gold deposit in Saudi Arabia. Gold exploration in Turkey suffered a setback when an administrative court annulled a segment of the Ovacık prospect mine-permitting process. Metal exploration continued in Oman and Saudi Arabia.

In 1997, three cement plants came online—the 730,000-t/yr-capacity plant at Umm Bab in Qatar, a 1-Mt/yr-capacity plant in Iran, and the Southern Province Cement Co.'s second plant with a capacity of 1.4 Mt/yr. Indo-Jordan Chemicals Co. Ltd.'s $170 million fertilizer plant opened. The operation included a 690,000-t/yr-capacity sulfuric acid plant and a 220,000-t/yr- capacity phosphoric acid plant. The Nippon Jordan Fertilizer Co. commissioned a 300,000-t/yr compound fertilizer plant in May.

Although petroleum and petrochemicals dominated the minerals sector of the Middle East, diversification efforts were being rewarded as value-added mineral and metal manufacturers continued to bring in additional revenues.

TABLE 1
MIDDLE EAST: PRODUCTION OF SELECTED MINERAL COMMODITIES, 1997 1/ 2/

(Thousand metric tons unless otherwise specified)

Country	Alumi-num e/	Boron	Cement, hydraulic e/	Chromite	Copper, mine Cu content	Gypsum e/	Natural gas: Plant liquids (thousand 42-gallon barrels)	Natural gas: Dry (million cubic meters)
Bahrain	490 3/	--	172 3/	--	--	--	3,977	8,030
Cyprus	--	--	1,000	--	4	150	--	--
Iran	92	(4/) e/	15,200	169 5/	117	8,900	22,000	43,000
Iraq	--	--	2,500	--	--	100 6/	10,000	3,000
Israel	--	--	6,700	--	--	50	--	20
Jordan	--	--	3,251	--	--	170	--	350
Kuwait	--	--	2,000	--	--	--	45,000	9,250
Lebanon	--	--	4,500	--	--	3	--	--
Oman	--	--	1,300	18	--	--	3,800	4,000
Qatar	--	--	700	--	--	--	22,000	21,500
Saudi Arabia	--	--	15,400 3/	--	1 e/	365	263,900	43,900
Syria	--	--	5,000	--	--	325	18,000	3,000 e/
Turkey	60	1,510	36,035 3/	1,864	35 e/	700	--	251
United Arab Emirates	398	--	6,000	61	--	90	110,000	37,300 e/
Yemen	--	--	1,200	--	--	80	2,600	70,000
Total, Middle East 7/	1,040	1,510	100,958	2,112	157	10,933	501,277	243,601
Total, world	21,400	3,070	1,551,000	12,500	11,400	104,000	2,372,500	2,313,768
Share of world total	5%	49%	7%	17%	1%	11%	21%	11%
United States	3,600	1,190	84,244 3/	--	1,940	18,600	788,035	535,188

Country	Nitrogen, N in ammonia e/	Petroleum, crude (thou-sand 42-gallon barrels) 8/	Phosphate rock e/ (gross weight)	Potash e/ K_2O equivalent	Salt e/	Steel, crude e/	Sulfur e/
Bahrain	360	14,159	--	--	--	--	66
Cyprus	--	--	--	--	--	--	--
Iran	880	1,337,360	--	--	1	6,322	900
Iraq	500	433,000	1,000 9/	--	250	300	475
Israel	57	36	4,047 9/	1,488	800	203	60
Jordan	--	--	6,075	649	50	30	--
Kuwait	432	732,574	--	--	100	--	664
Lebanon	--	--	--	--	4	--	--
Oman	--	323,755	--	--	--	--	30
Qatar	943	224,110	--	--	--	616	65
Saudi Arabia	1,405	3,080,235	--	--	90	2,539 3/	2,400
Syria	30	220,500	2,000	--	112 3/	70	10
Turkey	558	25	--	--	2,000	13,644 3/	226
United Arab Emirates	373	845,340	--	--	--	--	236
Yemen	--	135,000	--	--	110	--	--
Total, Middle East 7/	5,538	7,346,094	13,122	2,137	3,517	23,724	5,132
Total, world	101,000	27,135,195	138,000	25,700	201,000	795,000	53,600
Share of world total	5%	27%	10%	8%	2%	3%	10%
United States	13,200 10/	2,359,725	45,900	1,400	41,400	98,500	12,000

e/ Estimated.
1/ Table includes data available through January 1, 1999.
2/ Data may be different from that appearing in individual country production tables owing to availability of more-current data.
3/ Reported figure.
4/ Less than 1/2 unit.
5/ Concentrate.
6/ For cement production only. Information is insufficient to formulate reliable estimates for output for other uses (plaster, mortar, etc.).
7/ May not add to totals shown because of independent rounding.
8/ Includes lease condensate.
9/ Beneficiated.
10/ Synthetic anhydrous ammonia; excludes coke oven byproduct ammonia.