

# THE MINERAL INDUSTRIES OF THE MIDDLE EAST

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For many of the 15 nations of the Middle East covered in this section, petroleum continued to be the most important mineral commodity in 1998. Petroleum production and processing remained, for the most part, under Government control.

In 1998, the depressed international market price for petroleum was aggravated by weak demand for petroleum in Asian markets. The continued drop of oil and gas prices and the resultant decreased revenues encouraged some countries to increase production to maintain income streams. In March, Saudi Arabia negotiated a production-restraint agreement with other petroleum-exporting countries. This agreement resulted in decreased oil production for many of the oil-producing nations of the Middle East during the second half of the year.

In 1998, Saudi Arabia once again became the leading supplier of crude oil to the United States. At 512 million barrels (Mbbl), Saudi Arabia surpassed Venezuela (502 Mbbl) and Mexico (482 Mbbl). Iraq (123 Mbbl) jumped to eighth place on the list of the largest crude oil suppliers to the United States, and Kuwait (110 Mbbl) remained ninth.

Two Middle Eastern countries were considered to be significant sources of nonfuel minerals for the U.S. industry—Israel for gemstones and Turkey for ferrochromium and pumice.

In 1998, mineral exploration activity included the hunt for copper and gold in Cyprus, Saudi Arabia, and Turkey; gold exploration in Iran; and prospecting for base and precious metals in Yemen. Hydrocarbon exploration continued in Iran, Israel, Jordan, Oman, Saudi Arabia, Syria, Turkey, the United Arab Emirates, and Yemen. New oilfields came on-stream in Iraq, Turkey, Saudi Arabia, and Yemen.

In Bahrain, Aluminium Bahrain BSC completed the expansion of the Number 3 line, expanding the smelter's capacity to 496,500 metric tons per year (t/yr). Bahrain Petroleum Co. initiated an upgrade of the petroleum refinery, and Gulf Petrochemical Industries Co. opened a 1,700-metric-ton-per-day-capacity urea plant.

In Cyprus, Hellenic Copper Mines Ltd.'s solvent extraction and electrowinning plant at the Skouriotissa copper mine

reached its full production capacity of 8,000 t/yr.

In Iran, a new mining law came into effect in June 1998. Construction projects in Iran included an alumina refinery at Jajarm, an 80,000-t/yr-capacity copper smelter in Khatounabad, and a 27,000-t/yr-capacity zinc smelter near Yazd. The U.S. Government waived the imposition of sanctions against the international consortium developing the offshore South Pars Gasfield. Subsequently, the National Iranian Oil Co. offered international companies the opportunity to participate in 42 oil and gas sector projects.

In Iraq, South Oil Co. of Iraq brought the West Qurna Oilfield on-stream. In February 1998, the United Nations (U.N.) Security Council authorized an increase in Iraq's petroleum export ceiling to \$5.25 billion during the 6-month period beginning with the fourth phase of the oil-for-food program that began in June 1998. U.N. Resolution 986 had initially authorized a \$2 billion ceiling for each 6-month phase of the program. About one-half of Iraq's oil exports were piped from Kirkuk to the Ceyhan oil terminal in Turkey; much of the remainder was shipped via the Iraqi port of Mina al-Bakir on the Arabian Gulf.

In Qatar, the Qatar Steel Co., Ltd., produced a record volume of crude steel.

In Saudi Arabia, construction of Saudi Iron and Steel Co.'s (Hadeed) flat steel rolling mill continued. Hadeed also was testing a new HYL-process direct-reduced iron plant at Al-Jubayl. A 1.2-million-metric-ton-per-year-capacity cement plant was commissioned at Tabuk. Low mineral commodity prices resulted in the deferment of a number of fertilizer, petroleum, and petrochemical projects in the Kingdom, as well as delaying the development of the Al-Masane polymetallic prospect.

Tüprağ Metal Madencilik San. Ve Tic. Sti. began obtaining permits for the Efemçukuru gold project in Turkey. In 1998, the aluminum, boron, copper, chromite, ferrochrome, and silver operations of state-owned Etibank Genel Müdürlüğü were spun off as separate companies within the newly formed state-owned Eti Holding Group.

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<sup>1</sup>Deceased.

TABLE 1  
MIDDLE EAST: PRODUCTION OF SELECTED MINERAL COMMODITIES, 1998 1/ 2/

(Thousand metric tons unless otherwise specified)

| Country               | Alumi-<br>num e/ | Boron  | Cement,<br>hydraulic e/ | Chromite | Copper,<br>mine<br>Cu content | Gypsum e/ | Natural gas   |                                     |
|-----------------------|------------------|--------|-------------------------|----------|-------------------------------|-----------|---|-------------------------------------|
|                       |                  |        |                         |          |                               |           | Plant liquids<br>(thousand<br>42-gallon<br>barrels) | Dry<br>(million<br>cubic<br>meters) |
| Bahrain               | 499 3/           | --     | 172                     | --       | --                            | --        | 3,960   | 8,030                               |
| Cyprus                | --               | --     | 1,200                   | --       | 5                             | 270       | --  | --                                  |
| Iran                  | 88               | (4) e/ | 19,000                  | 170 5/   | 115                           | 9,750     | 22,000  | 45,000                              |
| Iraq                  | --               | --     | 2,000                   | --       | --                            | --        | 8,000   | 4,000                               |
| Israel                | --               | --     | 5,100                   | --       | --                            | 60        | --  | 20                                  |
| Jordan                | --               | --     | 1,386                   | --       | --                            | 176       | --  | 264                                 |
| Kuwait                | --               | --     | 2,000                   | --       | --                            | --        | 45,000  | 9,260                               |
| Lebanon               | --               | --     | 4,100                   | --       | --                            | 3         | --  | --                                  |
| Oman                  | --               | --     | 1,300                   | 18       | --                            | --        | 4,000   | 7,800                               |
| Qatar                 | --               | --     | 700                     | --       | --                            | --        | 22,000  | 21,500                              |
| Saudi Arabia          | --               | --     | 14,000                  | --       | 1 e/                          | 330       | 263,900   | 46,100                              |
| Syria                 | --               | --     | 4,500                   | --       | --                            | 300       | 2,500   | 5,900                               |
| Turkey                | 60               | 1,650  | 38,200 3/               | 1,404    | 40 e/                         | 352       | --  | 562                                 |
| United Arab Emirates  | 400              | --     | 6,000                   | 60 e/    | --                            | 90        | 110,000   | 37,000                              |
| Yemen                 | --               | --     | 1,207                   | --       | --                            | 102       | 2,600   | 10,000                              |
| Total, Middle East 6/ | 1,047            | 1,650  | 100,865                 | 1,652    | 161                           | 11,433    | 483,960   | 195,436                             |
| Total, world          | 22,100           | 4,370  | 1,523,000               | 12,700   | 12,200                        | 107,000   | 2,156,400   | 2,349,200                           |
| Share of world total  | 5%               | 38%    | 7%                      | 13%      | 1%                            | 11%       | 22%   | 8%                                  |
| United States         | 3,713            | 1,170  | 85,222                  | --       | 1,860                         | 19,000    | 642,035   | 534,060                             |

  

| Country               | Nitrogen,<br>N in<br>ammonia<br>e/ | Petroleum,<br>crude<br>(thousand<br>42-gallon<br>barrels) 7/ | Phosphate<br>rock e/<br>(gross<br>weight) | Potash e/<br>K <sub>2</sub> O<br>equivalent | Salt e/  | Steel,<br>crude e/ | Sulfur e/ |
|-----------------------|------------------------------------|--|---|---|----------|--------------------|-----------|
|                       |                                    |  |   |   |          |                    |           |
| Cyprus                | --                                 | --   | --  | --  | --       | --                 | --        |
| Iran                  | 1,034                              | 1,325  | --  | --  | 1,450    | 5,600              | 900       |
| Iraq                  | 450                                | 750,000  | 1,000 8/                                  | --  | 250      | 200                | 450       |
| Israel                | 55                                 | 36   | 4,050 8/                                  | 1,500                                       | 800      | 203                | 60        |
| Jordan                | --                                 | --   | 5,817                                     | 910   | 195      | 30                 | --        |
| Kuwait                | 430                                | 761,025  | --  | --  | 100      | --                 | 665       |
| Lebanon               | --                                 | --   | --  | --  | 4        | --                 | --        |
| Oman                  | --                                 | 328,500  | --  | --  | --       | --                 | 30        |
| Qatar                 | 579                                | 254,040  | --  | --  | --       | 646                | 65        |
| Saudi Arabia          | 1,400                              | 3,041,000  | --  | --  | 90       | 2,400              | 2,300     |
| Syria                 | 129                                | 202  | 2,496                                     | --  | 163      | 70                 | 10        |
| Turkey                | 560                                | 23   | --  | --  | 2,170 3/ | 13,351 3/          | 350       |
| United Arab Emirates  | 370                                | 880,000  | --  | --  | --       | --                 | 237       |
| Yemen                 | --                                 | 138,600  | --  | --  | 147      | --                 | --        |
| Total, Middle East 6/ | 5,007                              | 6,168,911  | 13,363                                    | 2,410                                       | 5,369    | 22,500             | 5,134     |
| Total, world          | 105,700                            | 27,430,100   | 145,000                                   | 25,000                                      | 192,000  | 781,000            | 57,700    |
| Share of world total  | 5%                                 | 22%  | 9%  | 10%   | 3%       | 3%                 | 9%        |
| United States         | 14,700 9/                          | 2,656,500  | 45,100                                    | 1,300                                       | 41,300   | 98,600             | 11,600    |

e/ Estimated.

1/ Table includes data available through April 27, 2000.

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/ May not add to totals shown because of independent rounding.

7/ Includes lease condensate.

8/ Beneficiated.

9/ Synthetic anhydrous ammonia; excludes coke oven byproduct ammonia.