

IRAQ

By Philip M. Mobbs

The mineral industry of Iraq was dominated by the production of hydrocarbons. In 2001, when the price of petroleum dropped on world markets, Iraq's gross domestic product (GDP) was estimated to have fallen to about \$29.7 billion compared with \$31.8 billion in 2000 (Australian Department of Foreign Affairs and Trade, 2001§¹). The value of petroleum exports accounted for about 50% of GDP.

The mineral industry was administered by the Ministry of Industry and Mineral Resources and the Ministry of Oil. Legislation that controlled mining included Law 8 of 1997 and Statutory Instructions 1 of October 11, 1999, which included mining regulations. Petroleum legislation included Law 229 of December 14, 1970, Law 8 of 1997, and Resolution 1400 of September 1, 1980. Soon after Iraq's invasion of Kuwait in 1990, United Nations (U.N.) Security Council Resolution 661 restricted international trade with Iraq. Official Iraqi crude oil exports had resumed in 1996 under U.N. Security Council Resolution 986 (known as the Oil for Humanitarian Aid Agreement or the Oil for Food Program), although unofficial export routes also were used to evade the trade embargo on Iraqi crude oil and petroleum products (Middle East Economic Digest, 2001; Hoyos, 2002). In 2001, the Oil for Food Program was modified and renewed by Security Council Resolutions 1352, 1360, and 1382.

Iraq produced crude oil and natural gas from a few oilfields (tables 1, 2). Estimates of average crude oil production in 2001 ranged from about 2.355 million to 2.45 million barrels per day (Mbbbl/d) (Oil & Gas Journal, 2002; U.S. Energy Information Administration, 2002§). In 2001, the Government reported several successful oil and natural gas exploration wells in the Western Desert and announced that proven oil reserves had been increased to about 115 billion barrels and that natural gas reserves exceeded 3.2 trillion cubic meters (Organization of the Petroleum Exporting Countries, 2001; Schlumberger realtimenews, 2002§). Other mineral production was limited. In 2001, the State Organization for Minerals reported the discovery of a sulfur deposit in the Western Desert near Akashat (Iraq Press [London], 2001§).

The Government proposed a multibillion dollar bridge, hospital, housing, road, and school rebuilding program and projected a significant demand for imported and local construction materials in the near future (International Fairs & Promotions s.a.r.l., undated). Several small [10,000-barrel-per-day (bbl/d)-capacity] crude oil refineries were under construction (Iran Daily, 2000§).

Official exports of Iraqi crude oil were transported by pipeline to the port of Mina al-Bakr, Iraq, and the Ceyhan oil terminal in Turkey. Iraq shipped about 90,000 bbl/d of

crude oil and products to Jordan by truck under U.N. approval. About 100,000 to 200,000 bbl/d of crude oil was piped to Syria and between 80,000 and 200,000 bbl/d of crude oil and petroleum products reportedly was smuggled out of Iraq by boat or truck (Middle East Economic Digest, 2001; Sipress, 2001; Hoyos, 2002). In 2001, an average of 778,000 bbl/d of exported Iraqi crude oil reached the United States. This accounted for about 8.5% of net U.S. crude oil imports. The United States imported an average 620,000 bbl/d from Iraq in 2000, 725,000 bbl/d in 1999, 336,000 bbl/d in 1998, and 89,000 bbl/d in 1997. Iraq was the United States' sixth largest crude oil supplier (U.S. Energy Information Administration, 2002).

In 2001, the Government promoted the development of its natural gas resources. There were nearly 60 undeveloped evaluated petroleum prospects in addition to large unexplored areas. A number of international oil companies had entered into buy-back (post-1999) or production-sharing (pre-2000) contracts, which were suspended because of the U.N. sanctions; the Government, however, was becoming impatient with the delay in exploration and development (Iran Daily, 2001§). The Government projected that it would take 6 to 8 years after the U.N. embargo is lifted to reach a target production capacity of 6 Mbbbl/d and 10 years to attain an average natural gas production of 140 billion cubic meters per year (Oil & Gas Journal, 2000; Middle East News Online, 2001§). Actual production could be subject to quotas allocated by the Organization of the Petroleum Exporting Countries, given the impact that increased production would have on oil prices received by other members of the cartel.

More extensive coverage of the Iraqi petroleum sector is available in the U.S. Energy Information Administration's Iraq Country Analysis Brief (U.S. Energy Information Administration, 2002§).

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¹References that include a section twist (§) are found in the Internet References Cited section.

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TABLE 1
IRAQ: ESTIMATED PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Thousand metric tons unless otherwise specified)

Commodity 3/	1997	1998	1999	2000	2001	
METALS						
Steel, crude	200	200	200	50 r/	50	
INDUSTRIAL MINERALS						
Cement, hydraulic	1,700	2,000	2,000	2,000	2,000	
Nitrogen, N content of ammonia	220	220	220	200 r/	200	
Phosphate rock, beneficiated, phosphorus pentoxide content	300	300	300	200 r/	100	
Salt	250	250	300	300	300	
Sulfur, elemental:						
Native, Frasch	98 r/	98 r/	98 r/	98 r/	98	
Byproduct 4/	2 r/	2 r/	2 r/	2 r/	2	
Total	100 r/	100 r/	100 r/	100 r/	100	
MINERAL FUELS AND RELATED MATERIALS						
Gas, natural:						
Gross	million cubic meters	3,800	6,000	7,000	7,500	7,000
Dry	do.	3,000	3,000	2,800	3,000	2,920
Natural gas plant liquids	thousand 42-gallon barrels	10,000	8,000	3,000	4,000	4,000
Petroleum:						
Crude (including lease condensate)	do.	433,000 5/	750,000 5/	915,000 5/	937,000 r/	860,000
Refinery products	do.	175,000	180,000	125,000	140,000	170,000

r/ Revised.

1/ Includes data available through May 23, 2002.

2/ Estimated data are rounded to no more than three significant digits.

3/ In addition to commodities listed, the following also were probably produced but information is inadequate to estimate output: secondary aluminum, clay, fertilizers, gypsum, secondary lead, lime, limestone, industrial (glass or silica) sand, sand and gravel, and stone.

4/ Presumably from petroleum and natural gas processing.

5/ Reported figure.

TABLE 2
IRAQ: STRUCTURE OF THE MINERAL INDUSTRY IN 2001

(Capacity in metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Aluminum		Ur State Establishment (Government)	Aluminum remelt facility at Al Nassiriya	NA
Cement		Iraqi Cement State Enterprise (Government)	Al Qaim, Baghdad, Fallujah II (white cement), Hindiyah Barrage, Kerbala, Kubaisa, and Kufa I and II plants	NA
Do.		Sarchinar State Cement Enterprise (Government)	Sarchinar plant, Sulaymaniyah	NA
Do.		Southern Cement Enterprise (Government)	Samawah I and II plants, Samawah	NA
Do.		State Establishment for Building Materials - Mosul (Government)	Al Tamin, Badoosh II and III, Hammam al'Alil I and II, Sinjar, and Tasluja plants	NA
Fertilizers		General Fertilizers Industries Co. (Government)	Ammonia plant at Basra	300,000
Do.		do.	Urea plant at Basra	400,000
Do.		do.	Nitrogenous fertilizer plant at Khor al Zubair	NA
Do.		State Enterprise for Phosphates (Government)	Phosphatic fertilizer plant at Al-Qaim	130,000
Iron		State Enterprise for Iron and Steel Industries (Government)	Midrex direct reduced iron plant at Khor al Zubair	(1/)
Lead		N/A	Secondary lead smelter at Fallujah	NA
Natural gas 2/	thousand cubic meters	North Oil Company (Government)	Al-Anfal Field	5,700
Petroleum, crude		do.	Ain Zalah, Avanaah, Bai Hassan, Butmah, East Baghdad, Jambur, Khabbaz, Kirkuk, Ninava, Saddam, and Sufaiya Fields	(3/)
Do.		do.	Khurmala Dome	(4/)
Do.		South Oil Company (Government)	Bin Umr, Luhais, Missan, West Qurna, North Rumaila, South Rumaila, and Zubair Fields	(3/)
Petroleum products	barrels per day	Midland Refineries Company (Government)	Daura refinery at Daura	100,000
Do.	do.	do.	Al Wassat refinery at Babil 5/	10,000
Do.	do.	North Refineries Company (Government)	Baiji (North and Salaheddin) refineries at Baiji	300,000
Do.	do.	do.	New refinery at Baiji 5/	10,000
Do.	do.	South Refineries Company (Government)	Basra refinery at Basra	170,000
Do.	do.	do.	Meisan Refinery at Ammarah	10,000
Do.	do.	N/A (Government)	Refinery near Ash Sharqat	NA
Do.	do.	N/A	Refinery at Sulaymaniyah	NA
Phosphate rock		State Enterprise for Phosphate (Government)	Akashat	NA
Steel		State Enterprise for Iron and Steel Industries (Government)	Khor al Zubair	NA
Stone		State Enterprise for Raw Building Materials (Government)	Various locations	NA
Sulfur		Mishraq Sulphur State Enterprise (Government)	Mishraq 6/	NA

N/A Not available.

1/ Closed since 1990.

2/ Most natural gas produced in Iraq is associated with oil production, especially from the Ain Zalah, Bai Hassan, Butmah, Kirkuk, North and South Rumaila, and Zubair fields.

3/ Production capacity for all fields in 2001 was about 2.95 million barrels per day (1.1 billion barrels per year).

4/ Under development.

5/ Under construction.

6/ Sulfur was also recovered as a byproduct at oil refineries and natural gas plants.