



# 2005 Minerals Yearbook

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## SAUDI ARABIA

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# THE MINERAL INDUSTRY OF SAUDI ARABIA

By Philip M. Mobbs

In 2005, the Kingdom of Saudi Arabia maintained its position as the leading oil producer in the world. Saudi Arabia had diversified its economy and mineral industry, although the nation's economy remained strongly linked to the hydrocarbon sector, which accounted for about 53% of the gross domestic product (GDP) in 2005 compared with 46% in 2004. The last time that the oil sector had accounted for more than 50% of the GDP was 1981. The surge in the hydrocarbon sector's contribution to the GDP was attributed to the continued increase in international oil prices (Saudi Arabian Monetary Agency, 2006<sup>1</sup>; U.S. Energy Information Administration, 2006<sup>2</sup>).

The International Monetary Fund (2006<sup>3</sup>) estimated that the GDP based on purchasing power parity was about \$352 billion<sup>2</sup> in 2005 and that the GDP per capita based on purchasing power parity was about \$15,229. The real GDP growth rate was estimated to have increased by 6.6%.

In 2005, the Saudi Arabian Mining Company (Ma'aden) continued the development of the Az Zabirah bauxite mine, the Al Jalamid phosphate rock deposit, and the Zarghat magnesite deposit. Ma'aden also worked on its undeveloped gold resources. Tertiary Minerals plc of the United Kingdom continued its evaluation of the Ghurayyah tantalum prospect.

Several cement companies evaluated gypsum and limestone deposits in Saudi Arabia. In 2005, the fourth consecutive year of increased international oil prices resulted in the continuation of a construction boom in Saudi Arabia. The domestic demand for cement was estimated to be about 27 million metric tons in 2005 and domestic cement producers, which had a capacity of about 23 million metric tons per year (Mt/yr), were unable to meet this demand. A number of capacity expansions or new cement lines were under construction; total installed domestic capacity was projected to reach 33.5 Mt/yr by 2007 (James, 2005).

At Ras al-Zhor, Ma'aden continued work on the development of an alumina plant and a nitrogen and phosphate fertilizer complex. At Jubail, the construction of an ammonia and urea plant for Saudi Arabian Fertilizer Co. was underway. National

Titanium Dioxide Co. of Saudi Arabia proposed to expand its titanium dioxide pigment plant that processed imported rutile. Development work continued on numerous other mineral-based commodity projects, especially in the petrochemical and steel sectors.

More-extensive coverage of the mineral industry of Saudi Arabia can be found in the 2004 U.S. Geological Survey Minerals Yearbook, volume III, Area Reports—International—Africa and the Middle East.

## Reference Cited

James, Ed, 2005, Cement—Sedating the sector: Middle East Economic Digest, v. 49, no. 25, June 24, p. 52-54.

## Internet References Cited

International Monetary Fund, 2006 (September), Saudi Arabia, World Economic Outlook Database, accessed September 15, 2006, via URL <http://www.imf.org/external/pubs/ft/weo/2006/02/data/index.aspx>.

Saudi Arabian Monetary Agency, 2006, Gross domestic product by sectors—Annual reports (statistical tables), accessed November 6, 2006, via URL <http://www.sama.gov.sa/newreports/annual/en/section9/indexe/htm>.

U.S. Energy Information Administration, 2006 (October), Tables 4.1a-c, World crude oil production (including lease condensate)—1970-2005, accessed November 6, 2006, via <http://www.eia.doe.gov/ipm/supply.html>.

## Major Sources of Information

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<sup>1</sup>References that include a section mark (§) are found in the Internet References Cited section.

<sup>2</sup>Where necessary, values have been converted from Saudi riyals (SRIs) to U.S. dollars at the rate of SRIs3.75=US\$1.00.

TABLE 1  
SAUDI ARABIA: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

(Metric tons unless otherwise specified)

Commodity <sup>2</sup>	2001	2002 <sup>e</sup>	2003 <sup>e</sup>	2004	2005 <sup>p</sup>	
<b>METALS</b>						
Ferroalloys <sup>e</sup>	78,000	75,000	75,000	85,000	85,000	
Iron and steel:						
Iron ore	NA	NA	NA	503,500	500,000	
Direct-reduced iron	thousand metric tons	2,880	3,290 <sup>3</sup>	3,290 <sup>3</sup>	3,410	3,630
Steel, crude	do.	3,413	3,570 <sup>3</sup>	3,944 <sup>3</sup>	3,902	4,185
Metal ore, mine output:						
Gross weight <sup>e</sup>	2,000,000	2,000,000	2,000,000	2,200,000	2,200,000	
Copper content of concentrate and bullion <sup>e</sup>	800	800	800	652 <sup>r,3</sup>	668 <sup>3</sup>	
Gold content of concentrate and bullion	kilograms	5,000 <sup>e</sup>	4,192 <sup>3</sup>	8,769 <sup>3</sup>	8,268 <sup>r</sup>	7,456
Lead content of concentrate <sup>e</sup>	60	60	60	30	30	
Silver content of concentrate and bullion <sup>e</sup>	kilograms	15,000	14,000	13,000	14,494 <sup>r,3</sup>	13,501 <sup>3</sup>
Zinc content of concentrate <sup>e</sup>	3,300	3,000	3,000	1,500	1,500	
<b>INDUSTRIAL MINERALS</b>						
Barite <sup>e</sup>	9,000	9,000	9,000	15,000 <sup>r,3</sup>	15,000 <sup>3</sup>	
Cement, hydraulic	thousand metric tons	20,608	22,000	23,000	25,370 <sup>r</sup>	26,064
Fertilizer, phosphatic, P <sub>2</sub> O <sub>5</sub> content <sup>e</sup>	do.	150	150	150	295	300
Gypsum, crude <sup>e</sup>	do.	450	450	450	641 <sup>r,3</sup>	713 <sup>3</sup>
Lime <sup>e</sup>	350,000	350,000	350,000	350,000	360,000	
Nitrogen:						
N content of ammonia	thousand metric tons	1,774	1,737 <sup>3</sup>	1,743 <sup>3</sup>	1,726	1,780
N content of urea	do.	1,260	1,241 <sup>3</sup>	1,247 <sup>3</sup>	1,242	1,250
Salt	do.	1,000 <sup>r,e</sup>	1,000 <sup>r</sup>	1,300 <sup>r</sup>	1,530 <sup>r</sup>	1,738
Sand and stone:						
Aggregate	do.	120,000 <sup>e</sup>	120,000	120,000	156,300	190,000
Dolomite	do.	NA	NA	NA	530	498
Granite	do.	NA	NA	NA	716	843
Limestone	do.	NA	NA	NA	32,000	30,600
Marble	do.	NA	NA	NA	82	85
Pozzolana and scoria	do.	152	152	162	320	372
Sand and gravel	do.	NA <sup>r</sup>	NA <sup>r</sup>	NA <sup>r</sup>	33,100 <sup>r</sup>	28,000
Silica sand (glass sand)	do.	NA	NA	NA	625	518
Sulfur, byproduct, hydrocarbon processing	2,344,587 <sup>r</sup>	2,363,614 <sup>r,3</sup>	2,180,000	2,249,295 <sup>r</sup>	2,716,823	
<b>MINERAL FUELS AND RELATED MATERIALS</b>						
Gas, natural:						
Gross	million cubic meters	58,500	63,978 <sup>3</sup>	67,389 <sup>3</sup>	75,967	81,350
Dry	do.	53,689	57,314 <sup>3</sup>	60,060 <sup>3</sup>	68,000 <sup>e</sup>	72,000 <sup>e</sup>
Petroleum:						
Crude oil	million 42-gallon barrels	2,763 <sup>r</sup>	2,479 <sup>r,3</sup>	2,958 <sup>r,3</sup>	3,151	3,309
Condensate	do.	NA	NA	44 <sup>3</sup>	82	89
Natural gas liquids:						
Propane	thousand 42-gallon barrels	130,576 <sup>r</sup>	139,270 <sup>r,3</sup>	144,837 <sup>r,3</sup>	148,225 <sup>r</sup>	150,588
Butane	do.	83,220 <sup>r</sup>	91,858 <sup>r,3</sup>	87,812 <sup>r,3</sup>	91,060 <sup>r</sup>	94,148
Natural gasoline and other	do.	78,589 <sup>r</sup>	85,810 <sup>r,3</sup>	68,422 <sup>r,3</sup>	65,647 <sup>r</sup>	66,299
Total	do.	292,385	316,938 <sup>3</sup>	301,071 <sup>r,3</sup>	304,932 <sup>r</sup>	311,035
Refinery products:						
Liquefied petroleum gases	do.	13,230	10,340 <sup>3</sup>	10,150 <sup>3</sup>	13,400 <sup>r</sup>	12,740
Gasoline and naphtha	do.	152,230	153,000	171,720 <sup>3</sup>	198,570 <sup>r</sup>	198,870
Jet fuel and kerosene	do.	60,050	59,700	65,550 <sup>3</sup>	66,980 <sup>r</sup>	80,910
Distillate fuel oil	do.	193,770	193,000	215,590 <sup>3</sup>	234,890 <sup>r</sup>	236,370
Residual fuel oil	do.	169,530	158,000	169,380 <sup>3</sup>	172,790 <sup>r</sup>	177,970
Unspecified <sup>4</sup>	do.	8,650	9,180	10,240 <sup>3</sup>	11,490 <sup>r</sup>	13,780
Total	do.	597,460	583,000	642,630 <sup>3</sup>	698,120 <sup>r</sup>	720,640

<sup>e</sup>Estimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. <sup>p</sup>Preliminary. <sup>r</sup>Revised. NA Not available.

<sup>1</sup>Table includes data available through October 30, 2006.

<sup>2</sup>In addition to commodities listed, basalt, carbon black, clays, and methanol were produced, but available information is inadequate to make estimates of output.

<sup>3</sup>Reported figure.

<sup>4</sup>Includes asphalt.