

**Algeria: metals production, 2002-06 (tonnes, unless stated)**

	2002	2003	2004	2005	2006 <sup>p</sup>
<b>Cadmium, refined*</b>	85	0	0	0	na
<b>Gold (kg)</b>	369	365	597	697	377
<b>Iron ore ('000 tonnes)</b>	1,202	1,378	1,554	1,579	2,340
<b>producing: pig iron*</b>	960	965	994	952	1,000
<b>producing: steel, crude</b>	1,091	1,051	1,014	1,007	1,200
<b>Lead: concentrate (lead content)</b>	1,105	0	0	0	0
<b>Lead: metal, refined*</b>	6,000	6,100	5,000	5,000	5,000
<b>Mercury (kg)</b>	307,119	175,600	73,451	276	0
<b>Silver (kg)*</b>	1,400	500	40	800	100
<b>Zinc: concentrate (zinc content)</b>	8,576	2,796	231	4,463	572
<b>Zinc: metal, smelter output*</b>	26,136	32,200	25,000	30,000	30,000

\* estimate, p=preliminary  
Source: US Geological Survey

→ **“Algeria’s total gold deposits could well turn out to be 5 million ounces”**

cent owned by UK-based GMA Resources, with state-owned Sonatrach as a minority shareholder. Mining began in 2001 but because of delays in the delivery of equipment, Enor produced only 38,914 tonnes of ore in 2006, with an average gold grade of 9.57 grammes per tonne; in 2005, the mine had produced 65,718 tonnes of ore. The mines resource is estimated at 20 tonnes of gold.

However, GMA has identified substantial resources at the Amessmessa mine, 60km south of Tirek, which is estimated to hold 70 tonnes of gold. And Algerian government data indicates a large number of gold deposits in Zita, the area between the two sites. As a result, GMA Resources believes that Algeria’s total gold deposits could well turn out to be 5 million ounces, almost double the 2.8 million ounces indicated by the current prospecting data, some of which dates back to the 1980s. In July 2007, Montreal-based Cancor Mines was awarded a permit to explore the Ouzzal North property, 500km, adjacent to Amessmessa. Cancor’s concession

of identified viable reserves for minerals already known to be present – or the development of hitherto undeveloped deposits. For example, in May 2007, China Nuclear Corporation confirmed that it had held talks about the possibility of Algeria supplying China with uranium.

**Iron ore**

Algeria’s iron ore is produced mainly at the Bou Khrada and Quenza mines in the north, where reserves at the two sites are estimated at 70 million tonnes. There are a further 12 million tonnes at the still undeveloped Djebel Hanini deposit near Setif. There is also scope to develop iron

ore mines at Mercheri Abdelaziz and Gara Djebilet in the south-west, 250km from Tindouf. Reserves here are estimated at 3.5 billion tonnes, with a 57 per cent iron content. However, the development of these deposits is likely to require major investment in transport infrastructure.

**Gold**

Gold is mined at Tirek and Amessmessa, in the south-west, near the border with Mali. Tirek also produces silver. There are also gold deposits at Tiririne Hanane, in the south-east, and Abegui. The Tirek mine was constructed by South African group MDM for Enor – which is 52 per

**Algeria: Tirek production, 2001-07 (oz)**

	2001	2002	2003	2004	2005	2006	2007
<b>Gold</b>	7,597	13,324	11,658	19,194	20,476	12,111	7,661
<b>Silver</b>	0	0	0	2,133	3,551	2,136	1,649

Source: GMA Resources

23.6 million tonnes of uranium-bearing soil.

## Mining and the economy

Jordan's mining sector is a substantial contributor to the local economy, and is the country's single largest industrial sector. In 2008, mining and quarrying topped the list of the Jordanian economy's most productive sectors, with an increase of 14.5 per cent in 2008 at constant prices. The sector also contributed to 10 per cent of the country's GDP and 20 per cent of its exports.

Mining sector revenues were JD1.209bn (\$1.703bn) in 2007, up from JD1.093bn (\$1.54bn) in 2006, representing an increase of 10.6 per cent. Exports were worth JD745.3m (\$1,050m) in 2007, an increase of 12.6 per cent.

Cement was the leading mining product, with a contribution of 2.5 per cent to GNP,

Jordan: mining sector revenue contributions to GNP, 2003-07			
Year	GNP (JDm)	Mining sector revenue (JDm)	Contribution (%)
2003	7,353.60	685	9.3
2004	8,320.30	876	10.5
2005	9,231.20	1,053	11.4
2006	10,409.10	1,093	10.5
2007	11,817.40	1,209	10.2

Exchange rate: \$1=JDO.708  
Source: NRA

Jordan: mining sector revenues, 2007 (JDm)			
Mineral extracting products	149.287	481.809	631.096
Mineral manufacturing products	314.86	263.523	578.387
<b>Total</b>	<b>464.151</b>	<b>745.332</b>	<b>1,209.48</b>

Exchange rate: \$1=JDO.708  
Source: NRA

Jordan: mineral manufacturing product sales, 2005-07 ('000 tonnes)						
	2005 Export	2005 Local	2006 Export	2006 Local	2007 Export	2007 Local
<b>Fertilisers</b>	789,142	4,738	865,488	11,050	850,805	23,227
<b>Sulphuric acid</b>	na	48,323	na	49,916	na	49,916
<b>Phosphoric acid</b>	223,976	69,078	122,003	69,826	122,003	69,826
<b>Cement</b>	210,000	3,320,000	20,661	3,885,000	72,747	4,070,201
<b>Rock wool</b>	677	763	1,291	801	1,291	801
<b>Lime</b>	0	9,892	0	2,746	200	13,369

na=not available  
Source: NRA

followed by potash with 2.1 per cent, fertilisers at 1.8 per cent and quarries at 1.1 per cent. Bromine contributed 0.7 per cent, and acids 0.5 per cent.

## Investment

The NRA has made a sustained effort to catalyse investment in the mining sector, buttressed by the kingdom's liberal foreign investment regulations. The authority says that the country boasts 75 active mining agreements with local and international companies.

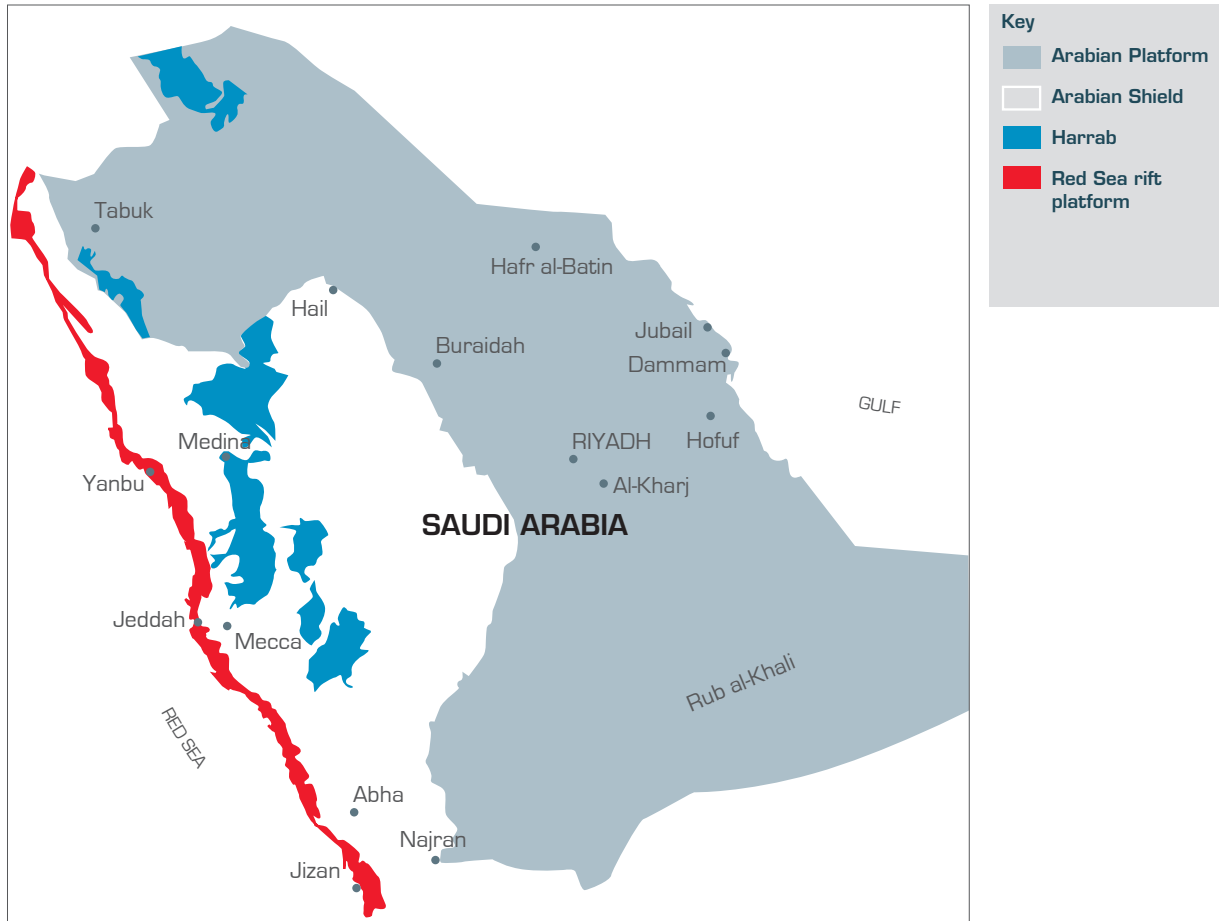
Mining projects are governed by the investment promotion law of 1995.

Over the last five years, major legal and institutional reform has been in progress. This has offered a number of incentives to investors in the sector. These include:

- Article 117 of the Constitution of Jordan allows for foreigners to invest in mineral resources under special agreements. These are negotiated with prospective investors and thereafter sanctioned by parliament as special laws, binding the government to the extent of their articles. Under such agreements investors have a legally secure title and mining rights permitting the investor to explore, mine and market the resulting products without risk. Foreigners may have up to 100 per cent ownership;

→ “Legal and institutional reform has offered a number of incentives to investors”

**Saudi Arabia**



Source: Saudi Geological Survey