

THE MINERAL INDUSTRY OF

TAJIKISTAN

By Richard M. Levine

Nonferrous metals and precious metals production were the leading sectors of Tajikistan's mineral industry. Tajikistan mined antimony, bismuth, copper, gold, lead, mercury, molybdenum, silver, tungsten, and zinc and produced aluminum. Tajikistan also extracted industrial minerals and mineral fuels including coal, gas, oil, and uranium.

Tajikistan's resources include a wide range of metals and industrial minerals as well as mineral fuels. Metal resources include alunite, antimony, bauxite, bismuth, cadmium, copper, gold, iron, lead, manganese, mercury, molybdenum, nepheline syenite, nickel, rare metals, selenium, silver, strontium, tin, tungsten, and zinc. Nonmetallic resources include barite, boron, construction materials, dolomite, fluor spar, phosphates, precious and semiprecious stones, and salt. Resources of mineral fuels include coal, natural gas, oil shale, peat, petroleum, and uranium. Tajikistan contains one of the world's largest silver deposits, the Adrasmskoye deposit, which the country hopes to develop with the aid of foreign investment. The country also has large antimony reserves with reportedly 9 of the FSU's 34 antimony deposits in Tajikistan.

In 1995 Tajikistan's GDP was estimated to have decreased by 12% compared with 1994 and continued the trend of decreasing GDP. Decreases ranging from 11% to 29% were registered for the years between 1992 and 1995.

Economic difficulties were based in part on shortages of energy which caused numerous enterprises to stand idle for periods of time. The country has large undeveloped hydroelectric resources and natural gas reserves which could potentially serve as sources of domestic energy. Plans called for speeding construction of a new 1-billion-kilowatt-capacity powerplant in Tajikistan on the Vakhsh River, the first stage of which was scheduled to be commissioned in the year 2000.

The Tajik aluminum smelter, with a capacity of over 500,000 t/yr of primary aluminum, reportedly produced 230,000 t of aluminum in 1995 which was slightly below 1994 output of 236,500 t. The smelter relies on imported energy and raw materials, with the smelter having great difficulty in 1995 acquiring needed energy.

The Zeravshan gold mining joint venture in Tajikistan between the Government of Tajikistan and the United Kingdom's Nelson Gold was planned to be developed in three stages. Plans for the first stage called for expansion of

two existing mines, the Jilau open pit and the Taror Mine. According to a report by Nelson Gold Corp. on July 31, 1995, Jilau contains proven and indicated reserves of 28.3 (Mt) of ore averaging 1.43 grams of gold per metric ton (g/t) and containing 40.5 t (1.3 million ounces) of gold as well as inferred reserves of 42.1 Mt of ore grading 1.03 g/t and containing about 43.4 t (1.4 million ounces) of gold. Taror reportedly contains proven and indicated reserves of 12.5 Mt of ore averaging 6.78 g/t of gold and containing about 84.8 t (2.7 million ounces) of gold.

The first stage of development includes the construction of a carbon-in-leach plant with a 700,000 t/yr capacity planned for commissioning in the first quarter of 1996. The joint-venture agreement also calls for Nelson to explore areas around the Zeravshan project. Nelson has identified five targets in an area around the project.

In stage two, Nelson plans to construct a heap-leach operation adjacent to the Jilau pit. Phase three calls for completion of the Taror underground mine. Total output from Zeravshan is projected to be over 300,000 ounces per year from the fourth quarter of 1998 through 2005, with some projections calling for output to increase to between 400,000 to 500,000 ounces per year by 2002. The International Finance Corp. joined the project in an advisory capacity.

Despite the problems of recent civil warfare and the concomitant issues of economic and political stability, Tajikistan has succeeded in attracting investment in its gold-mining industry. Besides the Zeravshan project, Tajikistan has agreements with the United Kingdom's Gold and Minerals Excavation to explore for gold in the southern region of the Darvaz mountain range and Canada's Gulf International Minerals to explore and develop gold and silver deposits in the Karmazarsk region. In addition, the Government was negotiating other gold exploration, mining, and processing projects with companies from Canada, the United Kingdom, and the United States. Also, the country retains a large-aluminum producing industry that is both trading with and being supplied by western firms. Investment in these mineral industries and the development of other mineral industries could provide for increased revenues from Tajikistan's mineral sector.

Despite Tajikistan's variety of mineral resources, Tajikistan's distant location from world markets and major transport arteries result in transport and infrastructure

development costs being major factors in assessing the viability of mineral development in Tajikistan.

OTHER SOURCES OF INFORMATION

State Industry Committee of Tajikistan

c/o Representative Office (Moscow)

Raspletina 5

Moscow, Russia

Telephone: 7 095 946 9913/9805, Fax: 7 095 946 9913

TABLE 1
TAJIKISTAN: STRUCTURE OF THE MINERAL INDUSTRY FOR 1995

(Metric tons unless otherwise specified)

Commodity	Major operating companies	Location of main facilities	Annual capacity e/
Aluminum	Tajik aluminum plant	Tursunzade	500,000.
Antimony	Anzob mining and beneficiation complex	Dzhzhikrutskoye deposit	2,000.
Bismuth, metal	Leninabad mining and beneficiation complex	Yuzhno-Yangikanskiy deposit	25.
Do.	Isfara hydrometallurgical plant	Isfara	
Coal	Shurabskoye brown coal	Shurab region	300,000 total.
Do.	Fan-Yagnobskoye hard coal, deposits	Pyandzh region	
Copper	Leninabad mining and beneficiation complex	Yuzhno-Yangikanskiy deposit	NA.
Gold	Tajikzoloto mining-beneficiation complex, Pamir Artel	Darvazy, Rankul placer deposits, placers in central and southern part of country	3.
Lead	Leninabad mining and metallurgical complex	Yuzhno-Yangikanskiy deposit	2,500.
Mercury	Anzob mining and beneficiation complex	Dzhzhikrutskoye deposit	150.
Molybdenum	Leninabad mining and beneficiation complex	Yuzhno-Yangikanskiy deposit	NA.
Petroleum and natural gas	16 oil-gas deposits under exploration, including: Ravatskoye, Ayritanskoye, Madaniyatskoye	Fergana depression	100,000 (petroleum). 100,000,000 cubic meters (natural gas).
Do	Shaambary Beshtentyakskoye, Uzunkhorskoye, Kichik-Bel-skoye	Southern Tajik depression	
Zinc	Leninabad mining and beneficiation complex	Yuzho-Yangikanskiy deposit	NA.

e/Estimated. NA Not available.