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World rankings for mineral production, shares of world production, and reserves presented in this chapter are derived from the referenced sources. Production data in this chapter may differ from data in other sources because of differences in the date of reporting.

The Mineral Industry of Uzbekistan

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In 2022, Uzbekistan was the leading producer in the world of kaolin (accounting for 16.4% of world production); the fourth-ranked producer of rhenium (8.9%); the fifth-ranked producer of uranium (6.7%); the seventh-ranked producer of tellurium (excluding United States production; 0.5%, tied with Bulgaria); the eighth-ranked producer of indium (0.1%); and the ninth-ranked producer of gold (3.4%) and molybdenum (0.7%, tied with Russia). In addition, Uzbekistan was one of the leading producers of cadmium, crude petroleum, and natural gas, gypsum, nitrogen (N content of ammonia), and phosphate rock. Other valuable minerals produced included copper, silver, and zinc. In 2022, Uzbekistan was estimated to hold 10.4% of the world's reserves of kaolin. Many other mineral commodities had been identified in Uzbekistan but had not been mined. In the past several years, however, the country made significant efforts to increase its mineral production, including through the expansion of copper and gold production facilities, construction of new phosphate and potash plants, and development of shale oil and gas condensate deposits. Owing to the brevity of this chapter, production of many mineral commodities is not covered in detail here. For more information, see previous editions of the U.S. Geological Survey Minerals Yearbook, volume III, Area Reports—International—Europe and Central Eurasia at https://www.usgs.gov/centers/national-minerals-information-center/europe-and-central-eurasia (table 1; Simmons, 2023, 2024; World Nuclear Association, 2023; Apodaca, 2024; Callaghan, 2024; Crangle, 2024; Flanagan, 2024; Jasinski, 2024; Polyak, 2024a, b; Sheaffer, 2024; Stewart, 2024; U.S. Central Intelligence Agency, 2024; U.S. Energy Information Administration, 2024).

Minerals in the National Economy

In 2022, Uzbekistan's real gross domestic product (GDP) increased by 5.7% compared with a 7.4% increase in 2021; the nominal GDP was 836.8 trillion soums ($72.65 billion).[1] During the year, industrial production accounted for 25.2% of the GDP. The share of mining and quarrying (within industrial production) in the GDP was 14.8% (15.3% in 2021), and that of manufacturing, 77.7% (77.3% in 2021). In 2022, total nominal industrial production was about $48.0 billion, which was a 5.3% increase compared with that in 2021. Of this total, manufacturing production increased by 5.4%, whereas mining and quarrying production decreased by 1.9% (Statistics Agency under the President of the Republic of Uzbekistan, 2024b, c).

[1]Where necessary, values have been converted from Uzbek soums (UZS) to U.S. dollars (US$) at the annual average exchange rate of UZS11,518=US$1.00 for 2022 and from euro area euros (EUR) to US$ at the annual average exchange rate of EUR0.951=US$1.00 for 2022.

Government Policies and Programs

Mineral production in Uzbekistan was governed by the "Law on Subsoil" that went into effect in 1994 and subsequently was revised in 2002. The goals of the law were the rational use of subsoil, mineral production to satisfy the needs of the people of Uzbekistan, protection of the rights of all parties involved in the use of subsoil, and environmental protection. According to the law, all subsoil is the property of the state, subject to rational use, and is protected by the Government (Oliy Mazhlis, 2002).

In March, the Cabinet of Ministers approved the rules for artisanal gold production. The lots for artisanal production must be smaller than 5 hectares (ha), contain alluvial gold, and have well-defined borders. The list of the lots is compiled and approved by the Ministry of Mining Industry and Geology. After the approval, the lots are placed on e-Auksion for potential auction participants. The minimum starting price was 9.45 million soums per hectare (about $820 per hectare). Once the auction ends, the artisanal mining licenses are issued for a period of 3 years (Spot.uz, 2022b).

Production

In 2022, production of bituminous coal increased by 75%; lignite coal, by 17%; soda ash, by 12%; and molybdenum, by 11%. On the other hand, bismuth production decreased by 58%; refined petroleum products, by an estimated 53%; kaolin, by 52%; lime, by 48%; lead, by 17%; rhenium, by 16%; cement, by 13%, and mined zinc, by 12%. There was no feldspar, manganese, or vermiculite production in 2022 compared with production of 106,000 t (revised), 220 t, and 3,200 t, respectively, in 2021. Data on mineral production are in table 1.

Structure of the Mineral Industry

In accordance with the President of Uzbekistan's decree of December 20, 2022, the State Committee for Geology and Mineral Resources (GosComGeology) was transformed into the Ministry of Mining Industry and Geology. The goals of the new ministry included the development of Government policy and improvement of the legal foundation of the mineral industry, advancement of sustainable development and replenishment of mineral resources and reserves, technologic modernization of the mineral industry, creation of mineral industry facilities capable of producing output in high-demand and high-value-added products, and integration of education, science, and innovation within a single industrial system. The Ministry of Energy of the Republic of Uzbekistan oversaw the country's energy industry, including regulating the energy sector, developing production-sharing agreements and public private partnerships, improving tariffs in the energy sector, and implementing modern corporate governance in the energy sector. Two leading mining and metallurgical complexes—the AO Almalyk mining and metallurgical complex (or combinat)

(GMK) and the AO Navoi GMK—were open-stock companies in which the Government was the primary shareholder. AO Uzbekneftegaz was also an open-stock company and was owned mostly by the Government. Table 2 is a list of major mineral industry facilities (Kursiv.kz, 2023).

Mineral Trade

In 2022, Uzbekistan had a negative trade balance of about $11.47 billion. The value of exports was reported to be $19.29 billion, which was an increase of 15.8% from that in 2021. The main mineral commodity exports were gold (which accounted for 21.3% of all export revenue), nonferrous metals (7.5%), chemicals and articles thereof (7.4%), energy and petroleum products (6.3%), and ferrous metals (1.1%). Uzbekistan's major export partners were Russia (which received 16.1% of Uzbekistan's exports), China (13.0%), Turkey (7.8%), Kazakhstan (7.2%), Kyrgyzstan (5.1%), Afghanistan (3.9%), and Tajikistan (2.7%) (Statistics Agency under the President of the Republic of Uzbekistan, 2024a).

The value of Uzbekistan's imports increased to $30.77 billion, or by 20.6% compared with the value in 2021. The main mineral import commodities were chemicals and articles thereof (which accounted for 16.4% of all import revenue), ferrous metals (7.6%), energy and petroleum products (5.8%), and nonferrous metals (1.5%). Uzbekistan's major import partners were China (which supplied 20.9% of Uzbekistan's imports), Russia (20.3%), Kazakhstan (10.5%), the Republic of Korea (7.5%), Turkey (5.7%), Germany (3.5%), and India (2.1%) (Statistics Agency under the President of the Republic of Uzbekistan, 2024a).

Commodity Review

Metals

Copper.—In 2022, Uzbekistan produced 138,400 metric tons (t) of copper in concentrate, which was 5.8% less than in 2021. The only copper producer in Uzbekistan was the Almalyk GMK, which was located in Toshkent Viloyati (Province). Two large copper porphyry mines, the Kalmakyr and the Sary-Cheku, were the complex's sources of copper in 2022. The mineral deposits in Toshkent Viloyati were highly complex and contained more than 170 types of minerals. In addition to copper, the Almalyk GMK mined and processed lead-zinc-barite ores from the Uch-Kulach Mine located in Jizzax Viloyati and the Khandiza polymetallic mine located in Qashqadaryo Viloyati. In 2022, the Almalyk GMK was the second-ranked taxpayer in Uzbekistan, accounting for about 10% of the Government's tax revenue (tables 1, 2; Khursanov, 2022; Almalyk mining and metallurgical complex, 2024).

In 2022, development investment at the Almalyk GMK totaled $788.8 million, of which $473.8 million came from the company's internal funds and $315 million was from direct loans from foreign banks. In February 2022, the Almalyk GMK was preparing for an initial public offering (IPO) of the company's shares on the open market. Specifically, expert international consultants were hired to provide an estimate of the fair market value of the company's assets, provide an estimation of the company's mineral reserves and resources, help develop a financial model for the Almalyk GMK, and develop an investment and technological concept for the company. The company planned to offer up to 5% of its shares at the Toshkent stock exchange and to conduct an international IPO for about 25% of its stock in 2023–24. At yearend, it was not known if the domestic IPO had taken place (Novikov, 2022; Spot.uz, 2022a; Klemenkova, 2023).

In 2022, the Almalyk GMK continued with the development of the Dal'neye copper-molybdenum deposit, also known as Yoshlik I. The Almalyk GMK had announced the start of this very large investment project in April 2017. Yoshlik I was expected to increase Almalyk's copper production to 290,000 t, and gold production, to about 32,700 kilograms (kg) (reported as 1.05 million troy ounces). The Yoshlik deposit would be mined using an open pit method. The bulk of investment in the Yoshlik I project would be directed to developing the Yoshlik deposit, constructing the underground Samarchuk Mine, and constructing a new ore-processing plant. By 2030, the Almalyk GMK planned to merge the Kalmakyr and the Yoshlik deposits into one producing mine, to be called the Oliy Ziyo Mine. According to preliminary estimates, the Oliy Ziyo Mine would have total reserves of 19,000 million metric tons (Mt) of ore (Podrobno.uz, 2021a; Uzdaily.uz, 2021; Khursanov, 2022; Kislitsyna, 2022).

By 2028, the Almalyk GMK planned to increase production to 400,000 metric tons per year (t/yr) of copper, 40,000 kilograms per year (kg/yr) of gold, and 270,000 kg/yr of silver from the 109,900 t, 14,640 t, and 98,900 kg, respectively, produced in 2017. To accomplish this goal, the Almalyk GMK was in the process of constructing a new ore-processing plant (called Plant #3), the cost of which was estimated to be $2 billion. The new plant would be located in a 196-ha (about 484-acre) area. It would have the capacity to process 60 million metric tons per year (Mt/yr) of ore and to produce 160,000 t/yr of copper. The plant was expected to be commissioned by January 2024. In addition, a 4-kilometer-long conveyor belt to transport the ore to the new plant would be constructed. Two more beneficiation plants were scheduled be constructed after 2024 (Podrobno.uz, 2021a, 2023a; Erzikov, 2022; Klemenkova, 2023).

By 2030, the Almalyk GMK planned to increase copper production to 500,000 t/yr; gold production, to 50,000 kg/yr; and silver production, to 300,000 kg/yr. In June 2021, the President of Uzbekistan announced the intention to create a new technological copper cluster in Uzbekistan that would focus on the production of high-value-added metallic copper and copper products. From 2017 through 2021, refined copper production in Uzbekistan increased by 35% to 148,500 t; however, about 60% of Uzbekistan's mined copper was exported as raw material. In 2020 (the latest year for which data were available), the total revenue from copper exports amounted to $2.5 billion. If the country were to increase copper production to 400,000 t by 2027, the total revenue (including proceeds from the metal processing and related industries) would be between $8 billion and $9 billion. The President issued an order to form a group of specialists to study the experiences of other countries with creating and operating copper clusters and to develop a detailed plan for the cluster creation for the period from 2022 through 2026. The products with high value added would include

rolled copper, copper alloys, and other copper-based finished products; by 2026, Uzbekistan planned to process 11,000 t of copper into such products. Also, the Angren Pipe Plant would be included in the copper cluster and would increase its production of copper pipe products to 20,000 t/yr by 2025 from 8,000 t/yr in 2021 (Podrobno.uz, 2021b, 2023a; Review.uz, 2021; Uzdaily.uz, 2021; E-techexpo.com, 2022).

Gold.—In 2022, Uzbekistan produced 106,700 kg of gold, which was a 3.0% increase compared with production in 2021. The main gold producers in the country were the two mining and metallurgical complexes—the Almalyk GMK and the Navoi GMK. Both of the mining and metallurgical complexes used to be Government owned, but the Government decided to convert them into open-stock companies, although uranium would continue to be produced by State Enterprise Navoiyuran (SE Navoiyuran). Starting in 2022, the Navoi GMK became a stock company and would thus be able to seek to attract private investment by issuing bonds (tables 1, 2; Spot.uz, 2022c).

The Navoi GMK's open pit Muruntau Mine in the Central Qizilqum region has been in operation since 1967 and had relatively low extraction costs. The Navoi GMK was the leading producer of gold in Uzbekistan. The Navoi GMK's share of total gold production in Uzbekistan was about 80%; it had control of 13 gold deposits, most of which were either already being mined or were planned to be developed in the near future. Overall, the Navoi GMK had a long-term plan to realize 27 projects between 2017 and 2026. The projects would create 31,000 jobs and cost $3.1 billion. Once the development of all projects was completed, the Navoi GMK's capacity of 80,000 kg/yr of gold was slated to increase by 30%. The projects included development of the Pistali deposit in Central Qizilqum, expansion of the Muruntau Mine, and construction of a technogenic-waste-processing complex (tables 1, 2; JSC Navoi Mining and Metallurgical Co., 2022; Vnedra.ru, 2022).

Gold refinery production by the Navoi GMK was conducted at three plants located in Uchkuduk (GMZ–3), Zarafshan (GMZ–2), and Zarmitan (GMZ–4). In addition, the GMZ–7 plant in the Central Qizilqum region was commissioned in 2020 and specialized in processing of ore from technogenic deposits. The GMZ–7 plant had the capacity to process 15 Mt/yr of ore. The GMZ–5 plant in the Central Qizilqum region was commissioned in 2021; this plant had the capacity to process 5 Mt/yr of ore mined at the Auminza-Amantau gold deposits. In April, the Navoi GMK began developing two more deposits—the Balpantau and the Tamdybulak—in the Tamdyn region of Navoiy Viloyati. The deposits would have a combined capacity to produce 3 Mt/yr of gold ore for 15 years. The ore would be processed at GMZ–2 (table 2; JSC Navoi Mining and Metallurgical Co., 2022; Podrobno.uz, 2022; Vnedra.ru, 2022; Sputnik [Uzbekistan], 2023).

Industrial Minerals

Potash.—In 2022, Uzbekistan produced 257,200 t of potash (K_2O equivalent), which was a 6.5% increase compared with that in 2021. The only producer of potash in the country was the Dekhkanabad potash fertilizer complex plant, which was located in Qashqadaryo Viloyati and owned by AO Uzkimyosanoat. The plant produced potash in the form of potassium chloride and employed about 2,000 workers. In 2022, the company sold 244,400 t of potassium chloride domestically and exported 78,300 t. The company exported its products to about 30 countries, including China, Turkey, and the United Arab Emirates. Among the investment projects the company planned to implement through 2025 were expansion of the products to include potassium sulfate and granulated potassium chloride, the construction of a material cableway, and improvements in the plant's power supply. At the 2022 rate of production, the plant had enough potash to continue producing potash for about 100 years (tables 1, 2; Sputnik [Uzbekistan], 2022; Kamalov, 2023).

Mineral Fuels and Related Materials

Coal.—In 2022, Uzbekistan increased production of bituminous coal by 75.1% to 525,800 t, and that of lignite, by 16.7% to 4.67 Mt. Prior to 2020, the domestic demand for coal in Uzbekistan was about 4 Mt/yr and the primary consumer of coal was TES Uzbekenergo, which used coal for the production of centralized heating and power. Owing to energy shortages in the country that first appeared during the abnormally cold winter of 2020, Uzbekistan's Government took several measures to alleviate the energy shortage and increasing the coal supply in the county was one of those measures. During the first 11 months of 2022 (which was the latest year for which data were available), Uzbekistan imported 2.39 Mt of coal, of which about 1.30 Mt was imported from Kazakhstan, about 1.03 Mt from Kyrgyzstan, and 62,500 t from Russia. Total coal consumption in Uzbekistan in 2022 was estimated to be 7.8 Mt (table 1; CDU.ru, 2023; Gazeta.uz, 2023b).

In 2022, the Government planned to take more measures to use coal as an available energy source. The Government expected the demand for coal to increase by 50% because many energy-consuming industrial and other customers were expected to switch from natural gas to coal owing to the limited availability of natural gas. Such customers included brick and cement plants, hothouses, hospitals, schools, and childcare centers. It was expected that in 2023 more than 5,400 social enterprises, about 1,150 hothouses, and 250 industrial plants would be converted from natural gas to coal as an energy source. Uzbekistan planned to import about 2 Mt/y of coal from Kyrgyzstan in 2023 and 2024 (1prime.ru, 2023; Gazeta.uz, 2023b).

Natural Gas and Petroleum.—In 2022, Uzbekistan's production of natural gas decreased by 4.0% to about 51.7 billion cubic meters and crude petroleum production increased by 4.2% to 5.8 million barrels. In December, Uzbekistan completely stopped exports of natural gas, including exports to China, because of the increased domestic demand and the unexpectedly cold winter. In 2022, exports of natural gas were 3.2 billion cubic meters, which was a significant decrease from the exports of 13.2 billion cubic meters in 2018. The shortages of domestically produced natural gas were compensated for by imports from Russia and Turkmenistan (table 1; RIA.ru, 2022b; Energypolicy.ru, 2023; Gazeta.uz, 2023a).

Uranium.—In 2022, Uzbekistan produced 3,300 t of uranium, which was a 6.3% decrease from production in 2011.

The sole producer of uranium in Uzbekistan was the Navoi GMK, which was in the process of a structural reorganization. Beginning in 2022, the uranium business of the Navoi GMK was given to SE Navoiyuran, which would develop uranium deposits, produce uranium and rare earths, and safely dispose of waste and radioactive materials. The resources of the Navoi GMK were estimated to be 139,200 t of uranium. Since 1994, all uranium in Uzbekistan was produced using in situ leaching, which was more cost effective and environmentally friendly than traditional mining (tables 1, 2; Spot.uz, 2022c).

Between 2022 and 2030, Uzbekistan planned to double its uranium production, to 7.1 Mt/yr. The primary approach to increasing production was geologic exploration, which was expected to increase uranium reserves to 10,500 t in 2030 from 4,500 t in 2022. A list of 20 investment projects totaling $460 million aimed at increasing uranium production was approved by the President in July 2022. In 2022, Uzbekistan increased uranium exports to the United States by 78%, and the country's share in United States uranium imports increased to 11% (RIA.ru, 2022a; Podrobno.uz, 2023b).

In September 2022, the European Bank for Reconstruction and Development announced that Uzbekistan would receive a 7-million-euro (about $7.36 million) grant for reclamation of land where the old Charkesar and Yangiabad uranium mines were located. The reclamation work, which was expected to begin in early 2023, would include the decommissioning of old uranium mines, demolition of contaminated buildings, and reconstruction of water infrastructure. It was projected that the environmental rehabilitation would continue for about 2 years and would be conducted under the supervision of local and German specialists (Gazeta.uz, 2022).

Outlook

In the past several years, Uzbekistan has intensified its efforts to grow the country's industry, including manufacturing, and specifically, automobile production, chemical production, production of construction products, and machine building. Increased industrial production and higher living standards in the country have already increased the domestic demand for energy commodities. Facing competition for its hydrocarbon resources between domestic demand and export needs and facing a significant decrease in natural gas exports, Uzbekistan will likely seek to increase its production and export of hydrocarbons during the next decade by expanding pipelines and modernizing the country's production facilities and infrastructure. The Government is likely to continue to form partnerships with firms from Asia and Russia to help achieve these objectives.

Uzbekistan is likely to increase its production of copper, gold, iron and steel, lead, uranium, and zinc. In the past several years, Uzbekistan has made concerted efforts to modernize the Almalyk GMK and the Navoi GMK and to ramp up their production. Barring unforeseen events in the world economy, Uzbekistan's production of metals and uranium is expected to increase in the next several years. The production of hydrocarbons and refined petroleum products, on the other hand, might require new, as yet unplanned investments, and the short-to-medium term dynamics of the hydrocarbon sector are harder to predict.

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TABLE 1
UZBEKISTAN: PRODUCTION OF MINERAL COMMODITIES[1]

(Metric tons, gross weight, unless otherwise specified)

Commodity[2]		2018	2019	2020	2021	2022
METALS						
Bismuth, mine, Bi content		15,300	17,000	26,500	3,350	1,410
Cadmium, refinery, primary		375	207	229	225	219
Copper:						
Mine, concentrates, Cu content		141,200	137,300	142,800	146,900	138,400
Smelter, primary[e]		120,000	145,000	145,000	150,000	150,000
Refinery, metal, primary		117,400	147,250	147,700	148,500	148,500
Gold, mine, Au content	kilograms	92,716	100,900	104,600	103,600	106,700
Indium, refinery, primary, In content	do.	800	1,000	1,030	1,180	1,113
Iron and steel, steel:						
Raw steel		646,000	666,000	939,000	1,049,000 [r]	949,800
Products, rolled		825,500 [r]	879,600 [r]	826,700 [r]	832,300 [r]	830,000 [e]
Lead, mine, Pb content		21,300	19,100	18,400	18,630	15,430
Manganese, mine, Mn content		--	1,700	2,050	220	--
Molybdenum, mine, Mo content		1,494	1,502	1,670	1,669 [r]	1,846
Rhenium, Re content	kilograms	5,400	3,000	4,900	4,900	4,100
Selenium, Se content	do.	1,900	2,300	2,300 [e]	2,300 [e]	2,300 [e]
Silver, mine, Ag content	do.	224,000	219,200	237,600	238,100	217,700
Tellurium, refinery, Te content	do.	47,500	35,000 [r, e]	25,000 [r, e]	12,750	13,680
Zinc:						
Mine, Zn content		38,400	35,400	37,200	35,990	31,700
Smelter, primary		70,000 [e]	67,845	72,993	90,020 [r]	90,050
INDUSTRIAL MINERALS						
Cement, hydraulic	thousand metric tons	9,200	10,990	12,540	13,043 [r]	11,360
Clays:						
Bentonite		40,000 [e]	32,588	48,739	59,053 [r]	60,000 [e]
Kaolin		4,688,700	5,903,800	5,577,700	8,518,200	4,049,800
Feldspar	thousand metric tons	50 [e]	48	64	106 [r]	--
Gypsum, mine		1,292,000	1,481,600	2,156,700	1,987,100	1,960,200
Lime	thousand metric tons	300 [e]	319	285	1,321 [r]	689
Nitrogen, ammonia, N content		1,100,000	1,100,000	900,000 [e]	1,240,000 [r, e]	1,350,000 [e]
Phosphate rock:[e]						
Gross weight		900,000	900,000	900,000	900,000	900,000
P_2O_5 content		150,000	150,000	150,000	150,000	150,000
Potash, K_2O content		215,900	241,900	213,700	241,600	257,200
Soda ash, synthetic		155,000 [e]	170,000 [e]	185,300	184,800 [r]	206,100
Stone, sand, and gravel, construction:						
Sand and gravel:						
Gravel	thousand metric tons	3,500 [e]	3,797	3,177	3,500 [e]	3,500 [e]
Sand	do.	5,000 [e]	5,800	4,454	5,000 [e]	5,000 [e]
Stone, size and shape unspecified, limestone	do.	1,000	918	1,335	1,200 [e]	1,200 [e]
Sulfur:						
Byproduct, S content:[e]						
Metallurgy		130,000	130,000	150,000	150,000	160,000
Natural gas and petroleum		340,000	330,000	320,000	320,000	320,000
Compounds, sulfuric acid		1,500,000	1,565,500	1,579,800	1,635,000 [r]	1,645,500
Vermiculite		2,756	1,800	1,700	3,200	--
MINERAL FUELS AND RELATED MATERIALS						
Coal:						
Bituminous		283,100	228,900	--	300,300	525,800
Lignite		2,316,900	3,089,400	3,647,000	4,004,300	4,674,200
Natural gas, dry basis	million cubic meters	60,400	59,460	49,739	53,802	51,660
Petroleum:						
Crude[3]	thousand 42-gallon barrels	5,450	5,110	5,360	5,520	5,750
Refinery[e]	do.	39,500	40,000	42,000	30,000 [r]	14,000
Uranium, mine, U content		3,331	3,500	3,500	3,520 [r]	3,300

See footnotes at end of table.

TABLE 1—Continued
UZBEKISTAN: PRODUCTION OF MINERAL COMMODITIES[1]

[e]Estimated. [r]Revised. do. Ditto. -- Zero.
[1]Table includes data available through January 19, 2024. All data are reported unless otherwise noted. Estimated data are rounded to no more than three significant digits.
[2]In addition to the commodities listed, aluminum, cesium, caustic soda, fluorspar, iodine, iron ore, lithium, refined gold, refined lead, and rubidium may have been produced, but available information was inadequate to make reliable estimates of output.
[3]Includes gas condensate.

TABLE 2
UZBEKISTAN: STRUCTURE OF THE MINERAL INDUSTRY IN 2022[1]

(Metric tons unless otherwise specified)

Commodity	Major operating companies, main facilities, or deposits	Location or deposit names[2]	Annual capacity[e]
Cement	OAO Kyzylkumcement (United Cement Group)	Plant in Navoiy City	3,800,000
Do.	OAO Akhangarancement (Eurocement Group)	Plant in Akhangaran City, Sirdaryo Viloyati	2,200,000
Do.	OAO Bekabadcement (United Cement Group)	Plant in Bekabad City, Toshkent Viloyati	1,800,000
Do.	OOO Sherabad Cement Plant (Almalyk GMK[3])	Plant in Surxondaryo Viloyati	1,500,000
Do.	OAO Kuvasaycement (United Cement Group)	Plant in Kuvasay City, Farg'ona Viloyati	1,100,000
Do.	OOO Surkhantsementinvest Plant	Plant in Surxondaryo Viloyati	1,100,000
Do.	OOO Jizzak Cement Plant (Almalyk GMK[3])	Plant in Jizzax Viloyati	1,000,000 [4]
Cesium, lithium, rubidium	Shava-Say deposit	Toshkent Viloyati	NA
Clays:			
Bentonite	Arab-Dasht and Khaudag deposits	NA	NA
Kaolin	Angren deposit	Quarry in Toshkent Viloyati	NA
Coal:			
Bituminous	OAO Shargun'kumir and OAO Erostigaz	Baysun and Shargun Mines, Surxondaryo Viloyati	600,000
Lignite	OAO Uzbekugol and OAO Apartak	Angren Mine, Toshkent Viloyati	4,500,000
Copper:			
Mine, Cu content	AO Almalyk mining and metallurgical complex (Almalyk GMK[3])	Dal'neye (Yoshlik), Kalmakyr, and Sary-Cheku Mines, Toshkent Viloyati	150,000
Concentrates, Cu content	Almalyk polymetallic beneficiation plant (Almalyk GMK[3])	Qashqadaryo Viloyati	NA
Metal	Almalyk integrated smelter and refinery (Almalyk GMK[3])	Olmaliq City	130,000
Feldspar	Karichsayskoye and other deposits[5]	Deposits in Samarqand Viloyati, Toshkent Viloyati, and Qoraqalpog'iston Respublikasi	120,000 [6]
Fertilizers (nitrogen, phosphate, potash)	AO Indorama Kokand Fertilizers and Chemicals	Plant in Qo'qond City	350,000
Do.	AO Ammophos-MAXAM	Plant in Olmaliq City	270,000
Do.	AO Farg'onaazot	Plant in Farg'ona area	NA
Do.	AO Samarkand chemicals plant	Plant in Samarqand Viloyati	NA
Do.	OAO Maxam Chirchiq	Plant in Chirchiq City	NA
Do.	Naviazot production association	Plant in Navoiy Viloyati	NA
Fluorspar	Agata-Chibargata, Aurakhmat, Kengutan, Kyzylbaur, Naugarzan, and Nugisken deposits	East of Toshkent Viloyati	150,000
Do.	Syrpatash deposit	Namangan Viloyati	NA
Gold:			
Mine, Au content kilograms	Various facilities and deposits, which included: Navoi mining and metallurgical complex (Navoi GMK)[7]	Of which: Adzhi-Bugutty, Amantaytau, Bulutkan, Daugyztau, Donguz-Tau, Kokpatas, Muruntau, and Taurbay Mines in Central Qizilqum region Kochbulak and Kyzyl-Al'ma-Say Mines, Toshkent Viloyati	90,000
Do. do.	Almalyk mining and metallurgical complex (Almalyk GMK[3])	Dal'neye (Yoshlik), Kalmakyr, and Sary-Cheku Mines, Toshkent Viloyati	25,000
Refined	do.	Uchkuduk (GMZ–3), Zarafshan (GMZ–2), Zarmitan (GMZ–4), (GMZ–5), and (GMZ–7) gold refineries in Navoiy Viloyati	NA
Graphite	Tadzhi-Kazgan deposit[4]	Navoiy Viloyati	NA
Iron ore	Syurenata deposit[4]	Toshkent Viloyati	NA
Lead, mine, Pb content	Almalyk mining and metallurgical complex (Almalyk GMK[3])	Khandiza Mine in Qashqadaryo Viloyati, Uch-Kulach Mine in Jizzax Viloyati	40,000

See footnotes at end of table.

TABLE 2—Continued
UZBEKISTAN: STRUCTURE OF THE MINERAL INDUSTRY IN 2022[1]

(Metric tons unless otherwise specified)

Commodity	Major operating companies, main facilities, or deposits	Location or deposit names[2]	Annual capacity[e]
Lime	do.	Plant in Toshkent Viloyati	NA
Manganese	AO Uzmetkombinat	Dautash Mine, Qashqadaryo Viloyati[5]	40,000
Molybdenum:			
Mine, Mo content	Almalyk mining and metallurgical complex (Almalyk GMK[3])	Kalmakyr and Sary-Cheku Mines, Toshkent Viloyati	2,000
Metal	Uzbek refractory and hard metals plant (UzKTZhM) (Almalyk GMK)	Plant in Chirchiq City	NA
Natural gas million cubic meters	Gazli, Kandym, Khauzak, Kokdumalak, Pamuk, and Shurtan-Say fields(major)	Amu-Dar'ya Basin; Muborak region	70,000 [6]
Do.	Itera/PAO Lukoil (Russia), AO Uzbekneftegaz	Kandym field, Bukhara Viloyati	NA
Natural gas condensate	Trinity Energy group	Ustyurt Platosi region	NA
Natural gas liquids	Shurtan gas-chemical complex	Shurtan-Say deposit, Qashqadaryo Viloyati	137,000
Natural gas processing million cubic meters	Mubarek gas processing plant complex (AO Uzbekneftegaz)	Plant in Muborak region	40,000
Petroleum:			
Crude	Kokdumalak and Mingbulak deposits (major)	Qashqadaryo and Namangan Viloyatis	NA [6]
Refinery products	OOO Fergana oil refinery (SANEG)	Farg'ona Viloyati	8,800,000
Do.	OOO Bukhara oil refinery (SANEG)	Buxoto Viloyati	2,500,000
Do.	OOO Alty-Aryk oil refinery (SANEG)	Alty-Aryk area	NA
Phosphate rock	Kyzyl Kum complex	Dzheroy-Sardarin (moroccan type), Dzhetymtau Mines Karaktay, Severnyy, and	NA
Potash	Dekhkanabad potash fertilizer complex (AO Uzkimyosanoa	Tubegatan Mine in Qashqadaryo Viloyati	330,000
Rhenium	Almalyk mining and metallurgical complex (Almalyk GMK[3])	Toshkent Viloyati	NA
Selenium	do.	do.	NA
Silver	do.	do.	NA
Do.	Kosmanachi, Okzhetpes, and Vysokovoltnoye deposits	Namangan Viloyati	NA
Steel:			
Raw	AO Uzmetkombinat	Toshkent Viloyati	1,100,000
Rolled	Tashkent Metallurgical Plant (TMZ)	Toshkent, Toshkent Viloyati	750,000
Do.	AO Uzmetkombinat	Toshkent Viloyati	NA
Sulfur	Mubarek gas processing plant complex (AO Uzbekneftegaz)	Plant in Muborak region	400,000
Do.	Almalyk mining and metallurgical complex (Almalyk GMK[3])	Sulfuric acid plant, Toshkent Viloyati	NA
Tellurium	Almalyk mining and metallurgical complex (Almalyk GMK[3])	Toshkent Viloyati	NA
Uranium, U content	State Enterprise Navoiyuran (Government, 100%)	Navoi (GMZ–1)	3,600
Vermiculite cubic meters	Tebinbulak deposit8	Qoraqalpog'iston Respublikasi	25,000
Zinc:			
Mine, Zn content	Almalyk mining and metallurgical complex (Almalyk GMK[3])	Khandiza Mine, Qashqadaryo Viloyati and Uch-Kulach Mine, Jizzax Viloyati	NA
Concentrate, Zn content	Almalyk polymetallic beneficiation plant (Almalyk GMK[3])	Qashqadaryo Viloyati	60,000
Metal	do.	do.	90,000

[e]Estimated; estimated data are rounded to no more than three significant digits. Do., do. Ditto. NA Not available.
[1]Many location names have changed since the breakup of the Soviet Union. Many enterprises, however, are still named or commonly referred to based on the former location name, which accounts for discrepancies in the names of enterprises and that of locations.
[2]The word "Viloyati" means "Province" in the Uzbek language.
[3]As of 2022, the Government of Uzbekistan was the primary stockholder of AO Almalyk GMK.
[4]Capacity included both gray and white cement.
[5]Not in operation as of 2022.
[6]Capacity estimates are totals for all enterprises that produced that commodity.
[7]As of 2022, the Government of Uzbekistan was the primary stockholder of AO Navoi GMK.
[8]Status was unknown.