



2014 Minerals Yearbook

TAJIKISTAN

THE MINERAL INDUSTRY OF TAJIKISTAN

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Tajikistan is a primarily mountainous country that is home to the Pamir and Tien-Shan Mountains. It borders Afghanistan to the south, China to the east, Kyrgyzstan to the north, and Uzbekistan to the north and west. Tajikistan has more than 400 mineral deposits, including deposits of antimony, bismuth, fluorspar, gold, lead, mercury, molybdenum, natural gas, petroleum, tungsten, silver, and zinc. Some deposits have been explored and developed; however, many remained undeveloped owing to their location and depth. In terms of world production in 2014, Tajikistan ranked fifth in antimony and sixth in mercury. In addition, aluminum, cement, coal, copper, crude petroleum, gold, gypsum, natural gas, salt, sand and gravel, silver, and zinc were produced. Historically, Tajikistan has imported natural gas from Uzbekistan, but not in 2013 or 2014, as the two countries still had not reached an agreement on the price of natural gas imports. The gap in energy supply was made up by increased use of coal (table 1; Embassy of the Republic of Tajikistan in Swiss Confederation—Permanent Mission of the Republic of Tajikistan to the United Nations Office at Geneva, The, 2009; Ergasheva, 2014d; George, 2016; Guberman, 2016).

Minerals in the National Economy

In 2014, the gross domestic product (GDP) was reported to be \$8.6 billion¹ compared with \$8.5 billion in 2013, and real GDP growth was 6.7% in 2014 compared with 7.4% in 2013. Industrial production accounted for 12% of the GDP in 2014 compared with 12.6% in 2013; in nominal terms, it increased by 5.0% in 2014 compared with 3.9% in 2013, owing to the commissioning of new facilities, such as cement- and coal-production plants. Mining made up 13% of the value of industrial production in 2014 compared with 8.9% (revised) in 2013. In 2014, mineral sector revenue increased by 26% to 1.4 billion somoni (\$265 million) compared with 1.1 billion somoni (revised) (\$234 million) in 2013, which accounted for 13% of total industrial sector revenue. In 2014, mining and quarrying employment decreased by 12% to 10,600 employees compared with 12,000 employees in 2013 (MINEX Central Asia, 2014, p. 1; World Bank, The, 2014, p. 1; Agency on Statistics Under the President of the Republic of Tajikistan, 2015, p. 41, 78–79, 82).

According to the Agency on Statistics Under the President of the Republic of Tajikistan, the total value of foreign direct investment (FDI) in the first 6 months of 2014 was \$170 million. China accounted for 44.4% of total FDI in Tajikistan; Russia, 13.8%; the United Kingdom, 6.4%; the United States, 5.3%; Qatar, 2.8%; Iran, 1.4%; and Switzerland, 1.2%. The FDI flowed mainly into the mining sector (38.4%), the communications

¹Where necessary, values have been converted from Tajikistani somoni (TJS) to U.S. dollars (US\$) at an average rate of TJS5.28=US\$1.00 for 2014 and TJS4.77=US\$1.00 for 2013.

sector (20%), exploration activity (16.9%), and construction and repair activities (5.4%) (Chorshanbiyev, 2014).

Government Policies and Programs

In 2014, a memorandum of cooperation was signed by the Minister of Industry and New Technologies and Tachen International Company of XUAR Resources (Tachen Resources) of China. According to the memorandum, Tachen Resources was expected to invest \$400 million into development of the north Zarnisor deposit and construction of the China-Tajikistan industrial zone in Istikol. The total area of the China-Tajikistan industrial zone was estimated to be 0.69 square kilometer (km²). The industrial zone would include a lead-zinc metallurgical complex and cement, chemical, and construction material enterprises, and was expected to be completed at the end of 2017 (Ministry of Industry and New Technologies of the Republic of Tajikistan, 2013e).

In 2013, the Ministry of Energy and Industry was renamed the Ministry of Energy and Water Resources. The Ministry of Industry and New Technologies was established in November and assigned responsibility for monitoring such industries as mining and metallurgy, machine manufacturing, construction materials, textiles, food processing, and coal mining. The Ministry of Industry and New Technologies implemented new programs, such as the program to develop gold and silver processing capacity from 2012 to 2016. The intent of the program was to increase the production of precious metals by identifying new gold and silver deposits, developing new mines, expanding the production capacity of existing facilities that produced gold and silver, and opening new facilities to produce gold and silver (Ministry of Economic Development of the Russian Federation, 2013b, p. 1; Ministry of Industry and New Technologies of the Republic of Tajikistan, 2013c, d).

Production

In 2014, cement production increased by 200%; zinc, by 95%; coal, 70%; antimony, 45%; natural gas, 38%; lead, 26%; gold, 25%; sand and gravel, 17%; and gypsum, 6%. The production of primary aluminum decreased by 44%; crude petroleum, by 10%; and silver, by 6%. Data on mineral production are in table 1.

Structure of the Mineral Industry

Table 2 is a list of major mineral industry facilities.

Mineral Trade

The total value of trade in 2014 was \$5.27 billion compared with \$5.31 billion in 2013; exports totaled \$977.3 million in 2014 compared with \$1.2 billion in 2013, and imports totaled

\$4.3 billion in 2014 compared with \$4.2 billion in 2013. In 2014, the value of aluminum exports was about \$234 million, which accounted for 23% of total exports compared with \$370 million in 2013, which accounted for 32% of total exports. The decline in aluminum exports was owing to ongoing issues, such as limited power supply and financial pressure, at the Tajik Aluminum Co. (TALCO) plants. The country's main export partners were Switzerland (27%), Turkey (26%), Kazakhstan (18%), Iran (7%), Russia (5%), and China (4%) (Interfax, 2014a, p. 17; International Monetary Fund, 2014, p. 9; Agency on Statistics Under the President of the Republic of Tajikistan, 2015, p. 120–123, 124; Asian Development Bank, 2015, p. 129; Chorshanbiyev, 2015).

In 2014, imports of high-alumina clays decreased by 36% to \$130.6 million from \$202.5 million; and petroleum products increased by 30% to \$511.0 million in 2013 from \$393.3 million. The country's main import partners were Russia (28%), China (17%), Kazakhstan (16%), Latvia and Switzerland (5% each), Iran (4%), Turkmenistan (3%), and Ukraine and the United States (2% each) (Agency on Statistics Under the President of the Republic of Tajikistan, 2015, p. 124, 126).

Tajikistan's exports to the United States were valued at \$3.6 million in 2014 compared with \$672,000 in 2013. Iron and steel accounted for about \$5,000 of this amount. In 2014, imports from the United States were valued at \$24.5 million compared with about \$51.9 million in 2013; steelmaking materials accounted for \$109,000, iron and steel products, \$3,000 (U.S. Census Bureau, 2014a, b).

Commodity Review

Metals

Aluminum.—In 2014, state-owned TALCO decreased aluminum production by 44% to 121,000 metric tons (t) from 216,369 t in 2013. The decrease was attributed to TALCO's need to adapt to an intermittent supply of raw materials, to interruptions in energy supply, to the lack of skilled workers, and to low global prices for aluminum [in December the London Market Exchange (LME) official price for aluminum was \$2,050 per metric ton]. In August 2014, the Government and Glencore plc of Switzerland discussed Glencore's participation in modernizing TALCO (Asia-Plus, 2014c; Interfax, 2014a, p. 10; 2014b; Metal Bulletin, 2014, p. 12; Tajik Aluminium Co., 2014; Times of Central Asia, The, 2015).

Antimony.—In 2014, antimony production at the Anzobskii mining-beneficiation complex increased by 45% to 8,000 t of contained antimony from 5,500 t in 2013. The complex used only 50% of its designed annual capacity of 700,000 metric tons per year (t/yr) of antimony ore. According to the Ministry of Energy and Water Resources, Campus Commodities Inc. of the United States, which owned the Anzobskii complex, had invested \$4.5 million in the construction of a metallurgical plant that would increase antimony metal production to 5,000 t/yr. The plant was expected to start operating in 2012; however, operations were postponed for unknown reasons (Ergasheva, 2013c).

Gold.—In 2014, Tajikistan's production of gold increased by 25% to 3,477 kilograms (kg) from 2,774 kg in 2013.

The increase in gold production was attributed to increased gold output by companies such as the Tajik-China Mining Co. Ltd. joint venture JV Zarafshon Gold Company LLC (ZGC) (to 1,902 kg), the Government-owned Tilloi Tochik [Tajik Gold] (509 kg), the private company Odina (236 kg), the Tajik-Canada joint venture Aprelevka (450 kg), and artisanal miners (380 kg) (East Time, 2015).

In 2013, ZGC (the country's leading gold producer) modernized the infrastructure at the Jilau and the Taror Mines and the processing system at its plant in the Sughd region. As of 2014, the modernization of infrastructure at the Jilau Mine was complete and the construction of the Jilau 10,000-t/yr metal plant was completed and put into trial production. The modernization of the Taror Mine was still in progress. In 2013, the Chairman of Zijin Mining Group and the President of Tajikistan announced that, owing to the modernization of the operations, the output of gold would increase by 3.5 t/yr (Zijin Mining Group Co. Ltd. 2011; 2013a; 2013b, p. 25; 2014, p. 32; Sedova, 2014, p. 14).

In 2014, YanTai Yuancheng Gold Co. of China signed an agreement with the gold-mining joint venture Aprelevka to develop deposits at Aprelevka's licensed areas. YanTai Yuancheng Gold was expected to invest in modernization of the gold mine. Aprelevka was a joint venture between the Government (51%) and Central Asia Minerals and Resources plc of Canada through its subsidiary Gulf International Minerals Ltd. (49%). The agreement, signed in 1993, covered several deposits, including the Aprelevka, Beguly, Burgunda, Chashma-Dinar, Chorbi, Ikkizhilon, Kyzyl-Cheku, Nadak, and Okur deposits. The Aprelevka deposit consists of two mines, which are located about 50 kilometers (km) northeast of the city of Khujand and about 70 km east of the city of Kansai. The western pit was mined, but the eastern pit remained undeveloped. The highest grade of ore was contained in quartz-carbonate veins that occurred in shear zones. The lower grade ore occurred in a stockwork vein envelope that surrounded the higher grade ore. Aprelevka contracted BJ Drilling of Kyrgyzstan to begin drilling the Aprelevka East area in the fourth quarter of 2012. The drilling program was expected to continue through the second quarter of 2013; the objective of the program was to expand identified gold resources (Ministry of Industry and New Technologies of the Republic of Tajikistan, 2013b; Asia-Plus, 2014b; Gulf International Minerals Ltd., [undated]; Asia-Plus, 2014b).

State-owned Tilloi Tochik conducted a geologic survey of the newly discovered gold placer Sebi Kopa deposit, which is located in the Hovalgin region, Hatlonsk District. The company purchased \$400,000 worth of equipment for washing gold-bearing sands from the Magadan mechanical plant at the site. In 2014, Tilloi Tochik was expected to start extracting gold at the Sebi gold placer Kopa deposit; however, no updated information was available (Ergasheva, 2013b, d; 2014e).

China Nonferrous Gold Ltd. (CNG) held an exploration permit and a mining license for the Pakrut License Area through its subsidiary LLC Pakrut. The Pakrut license area consists of the Pakrut gold deposit and a 63-km² exploration area, which is located in the metalliferous southern Tien-Shan fold belt. Pakrut's Joint Ore Reserves Committee (JORC)

code-compliant estimate of the measured resources was 18.57 million metric tons (Mt) at a grade of 3.16 g/t gold; indicated resources were 10.02 Mt at a grade of 2.05 g/t gold; and inferred resources were 41.19 Mt at a grade of 1.64 g/t gold with a cutoff grade of 0.5 g/t gold. The feasibility study on developing the resources of ore-bearing zones 1 and 3, which are located at the southern and northwestern areas of the project, was carried out by Beijing General Research Institute of Mining and Metallurgy, and construction of the underground mine and the ore-processing plant was in progress. The initial production capacity of the Pakrut Mine was expected to be 660,000 t/yr of ore, which would increase to 1.32 million metric tons per year (Mt/yr) of ore in 2017. As of 2014, the exploration license had expired, and an application had been submitted to renew the license. The phase 1 production of 730,000 t/yr was expected to start in June 2015 (China Nonferrous Gold Ltd., 2013, p. 4; 2014, p. 7; SRK Consulting China Ltd., 2013, p.ii–iii).

Lead and Zinc.—For the first 6 months of 2014, 650,000 t of lead-zinc ore was mined, and 24,000 t of lead mine output (Pb content of ore), 39,500 t of zinc mine output (Zn content of ore) and 2,200 t of copper concentrate were produced. The Alтын-Топкан project, which is located in the settlement of Zarnisor, was operated by Tajik-China Mining Co. Ltd. and sponsored by Xinjiang Tacheng International Resources Co. Ltd. of China and the Government. The Minister of Energy and Industry and company officials discussed increasing the production capacity of the Zarnisor ore-processing plant and constructing a metallurgical plant in Sughd Province. China Global New Technology Imp. & Exp. Co., Ltd. of China, which was the main investor in Tajik-China Mining Co, would invest \$500 million in the construction of a metallurgical plant. The production capacity was estimated to be 50,000 t/yr each for lead and zinc. The processing of lead was expected to start in 2016, and the processing of zinc, in 2017. The plant was expected to employ 1,300 people (Chorshanbiyev, 2013; Ergasheva, 2014a; Kazakhstan Today, 2014; Rafiyeva, 2014).

Silver.—In 2014, silver production decreased by 6% to 1,700 kg from 1,800 kg in 2013. In 2013, the Adrasmankii mining-beneficiation complex planned to increase production of silver and zinc by 15% in Eastern Konimansur; however, it stopped operating owing to the decrease in the world price of silver (from \$19.50 per troy ounce in December 2013 to \$16.50 per troy ounce in December 2014) and termination of the investment by Konimansur LC Co. of Kazakhstan, which was owned by Kazzinc Ltd. of Kazakhstan. The State Committee for Investment and Property Management was looking for a new investor to develop the largest silver deposit in the country, Konimansuri Kalon (Bolshoi Konimansur). As of 2014, the tender process of Bolshoi Konimansur was stopped. The Government planned to process 15 Mt/yr of ore and to develop the deposit based on world standards by using experienced geologists and engineers. The historical reserves were estimated to be 1 billion metric tons (Gt) at grades of 49 g/t silver, 0.38% zinc, and 0.49% lead. The new survey indicated reserves of 70,000 t of silver (Ergasheva, 2013a, 2014a; Regnum, 2014; Kitco Metals Inc., 2015).

Industrial Minerals

Cement.—In 2014, cement production increased to 1.15 Mt from 385,000 t in 2013 owing to large-scale construction projects, such as the Rogum hydropower plant, and increased construction of housing and recreation facilities. In 2014, cement was produced by two large cement plants—the Yovon cement plant and the JSC Tajikcement Ltd. plant. JSC Tajikcement, which was located in Dushanbe, was reopened in October 2013 after switching to coal fuel. The plant produced 178,200 t of cement in the first 10 months of 2014 (Ergasheva, 2013d, 2014b; Global Cement, 2013a, 2014b; Ministry of Economic Development of the Russian Federation, 2013b, p. 2; Nezavisimoye Mneniye, 2013).

In 2013, the Tajikistan-China joint venture Huaxin Gayur Cement Co. Ltd., which had been established by Huaxin Zhongya Investment (Wuhan) Co. Ltd. (a subsidiary of Huaxin Cement Co. Ltd.) and Gayur LLC, constructed a cement plant with a production capacity of 1 Mt/yr in the Yovon District of Khatlon Province. Huaxin Zhongya Investment (Wuhan) Co. held 75% interest and Gayur held 25% interest in Huaxin Gayur Cement Co. The estimated cost of construction of the coal-powered plant was \$110 million. For the first 10 months of 2014, the Yovon plant produced 760,000 t of cement. Coal was obtained from the Fon-Yaghnob and the Ziddi coalfields. The plant employed 534 workers, and 80% were residents of Tajikistan (Global Cement, 2013b; Zangli, 2013; Asia-Plus, 2014d).

In 2014, Huaxin Zhongya Investment (Wuhan) Co. Ltd. of China and Gayur started construction of two new cement plants in northern Tajikistan. The Gayur-Sughd Cement plant, which was expected to be built in Ghafurov District, would have a production capacity of 1.2 Mt/yr. The cost of construction was estimated to be \$100 million. The first unit of the plant was expected to be commissioned in 2015, and the second unit, in 2016. The second plant, the Chjuntsay-Taboshar cement plant, was expected to have a production capacity of 0.6 Mt/yr and was expected to be completed in 2015 (Global Cement, 2014a).

Mineral Fuels

Coal.—In 2014, coal production increased by 70% to 878,100 t from 515,600 t in 2013 owing to demand from factories that were converting from natural gas to coal and the construction of thermoelectrical plants. Fon-Yaghnob was the leading coal producer in Tajikistan with estimated resources of 1 Gt. In October 2012, Kaisun Energy Group Ltd. of China was awarded a mining license for the eastern zone of the Fon-Yaghnob deposit. Production started in January 2013, and 33,460 t of coal was extracted during the year. The company owned mining rights for three other mines—the Kaftar-Hona anthracite deposit, the Zeddi coal deposit, and the Mienadu coal deposit. In 2014, Fon-Yaghnob produced 73% of the total coal production in Tajikistan (Kaisun Energy Group Ltd., 2012, p. 5; 2013, p. 5; Ministry of Industry and New Technologies of the Republic of Tajikistan, 2013a; Ergasheva, 2014c; Mangazeya, 2014; Sedova, 2014, p. 15; Trend, 2014).

Natural Gas and Petroleum.—In 2014, China National Petroleum Corporation (CNPC), Edgo Energy of Jordan,

Gazprom Neft PJSC of Russia, and Tethys Petroleum Ltd. of the United Kingdom were engaged in developing oil and gas reserves in Tajikistan. Edgo Energy signed a production-sharing agreement (PSA) with the Ministry of Energy and Industry. Under the agreement, Edgo Energy was given a 7-year exploration license for prospecting and a 30-year license for extracting hydrocarbons (with two 5-year extension) in the promising Surkhsimo and Qarordon Blocks (formerly Karadum and Kyziltumshuq). Both blocks are located close to the Tajikistan-Afghanistan border and are part of the Tajik hydrocarbon basin. In 2014, Edgo Energy signed a service agreement with Klarenco Oil and Gas Consulting of Russia to conduct and integrate a data review of all historical geologic and seismic exploration and production logs in the areas (Natural Gas Asia, 2013; Edgo Energy, 2014; Sedova, 2014, p. 13).

In 2013, the Government of China and the Government of Tajikistan agreed to construct a natural gas pipeline that would deliver natural gas from Turkmenistan through Tajikistan to China. In 2014, CNPC Trans-Asia Gas Pipeline Co. Ltd. and Tajiktransgaz signed an agreement to jointly construct Line D, which was expected to supply an additional 25 billion cubic meters per year of natural gas to China. Construction was expected to start in 2014 and was expected to be completed in 2016 (Natural Gas Asia, 2014a, b).

In 2013, Tethys Petroleum Ltd. signed a memorandum of understanding, through its subsidiary Kulob Petroleum Ltd., with CNPC, Total S.A. of France, and the Government of Tajikistan. Tethys Petroleum held 28.3% interest in the Bokhtar PSC, and CNPC and Total S.A. each held 33.33% interest. The Bokhtar PSC covers 35,000 km² in the Afghan-Tajik portion of the Amu-Darya region, in Cretaceous and Jurassic reservoirs west of the Pamir Mountains. Resources available through the Bokhtar PSC were estimated to be 27.5 billion barrels of oil equivalent, 3.2 trillion cubic meters of natural gas, and 8.5 billion barrels of oil. In December 2014, the joint venture of Tethys, Total, and CNPC, as a Bokhtar Operating Co., signed a contract to acquire additional seismic data from Tethys to supplement seismic data acquired previously from Tethys. The data would assist in identifying the best location to drill the first well; drilling was expected to begin by the end of 2015 (Natural Gas Asia, 2012; Tethys Petroleum, 2013; 2014a, p. 56; 2014b; Total S.A., 2013; Sedova, 2014, p. 13).

Gazprom's exploration licenses for hydrocarbons in the Western Shaambary and the Sarykamysk areas were extended for 5 years. In 2014, Gazprom completed the drilling of a prospecting natural gas well (Shakhrinav-1p) of 6,450 meters (m) depth at the Sarykamysk site. The data collected during drilling provided additional information about the structure of the area that could be helpful for further exploration. The reserves were estimated to be 18 billion cubic meters. Gazprom was expected to receive licenses for new prospects (Collins and White, 2013, p. 1; Gazprom, 2014, p. 61)

In 2014, the Government and Limited Liability Co. HELI of China signed an agreement to construct an oil refinery in the Danghara Free Economic Zone. The construction cost was estimated to be \$60 million for the first stage of the project and between \$300 million and \$500 million for the second stage of the project. The production capacity of the oil refinery

was expected to be 500 t/yr, and the refinery would employ 200 people. In the second stage of the project, the capacity of the refinery would increase to 1.2 Mt, and the refinery would employ 500 people (Asia-Plus, 2014a).

The only oil refinery in Tajikistan was located in Tursnzoda, a town in the Shahrinav District. It had a production capacity of 456,000 barrels per year (bbl/yr) of refined petroleum. A new oil refinery was being constructed by the open joint-stock company Nafrason in Kanibadam City, Sughd District. The new refinery was expected to be operational in September 2014 and to have a production capacity of 513,000 bbl/yr of refined petroleum. The refined petroleum was expected to be exported to Kazakhstan and Russia. As of 2014, no updated information was available concerning the construction of the oil refinery (Ministry of Economic Development of the Russian Federation, 2013a, p. 2).

Outlook

Tajikistan relies heavily on foreign investments and loans for development of infrastructure projects and mineral industries. At present, foreign companies are engaged in the development of coal, gold, and silver deposits and in the renovation and construction of cement plants. Tajikistan also is engaged in the development of its petroleum and natural gas reserves, which could help the country address energy shortages, stabilize energy supplies to industries, and prevent long-term environmental problems associated with the use of coal.

Given these efforts, it is likely that Tajikistan will be able to increase its output of gold and continue to expand production of cement, coal, natural gas, and petroleum.

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TABLE 1
TAJKISTAN: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2010	2011	2012	2013	2014
METALS					
Aluminum, primary	348,850	278,000	272,500	216,369	121,000
Antimony, Sb content of ore	3,000 ^r	6,000 ^r	6,600 ^r	5,500 ^r	8,000
Copper, Cu concentrate	--	--	--	--	2,200 ³
Gold, Au content of ore kilograms	2,049	2,240	2,400 ^r	2,774 ^r	3,477
Lead, mine output, Pb content of ore	4,000 ^r	9,000 ^r	12,000 ^r	19,000 ^r	24,000 ³
Mercury, Hg content of ore	30	30	32	34	35
Silver, Ag content of ore kilograms	2,651	1,764	1,767	1,800 ^r	1,700
Zinc, mine output, Zn content of ore	--	10,000	20,000	20,000	39,500 ³
INDUSTRIAL MINERALS					
Cement, hydraulic thousand metric tons	288	299	251	385 ^r	1,150
Gypsum	15,000	11,000	14,000	12,200 ^r	12,900
Salt	52,000 ^e	27,000 ^e	27,954	31,800 ^r	32,300
Sand and gravel cubic meters	NA	8,800	2,000	264,000 ^r	309,000
MINERAL FUELS AND RELATED MATERIALS					
Coal, bituminous and lignite	199,700	236,000	412,000	515,600	878,100
Gas, natural thousand cubic meters	22,800	18,800	11,170	2,100 ^r	2,900
Petroleum, crude:					
In gravimetric units	27,000	28,000	30,000	27,000	24,000
In volumetric units 42-gallon barrels	78,500	82,069	86,419	79,169 ^r	71,049

^eEstimated; estimated data are rounded to no more than three significant digits. ^rRevised. NA Not available. -- Zero.

¹Table includes data available through August 6, 2015.

²In addition to the commodities listed, Tajikistan has produced a number of other mineral commodities, but available information was inadequate to determine if production was still continuing.

³Production figures are for first 6 months of the year.

TABLE 2
TAJKISTAN: STRUCTURE OF THE MINERAL INDUSTRY IN 2014¹

(Metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity ^e
Aluminum	Tajik Aluminium Co. (TALCO) (Government, 100%)	Tursunzade smelter	517,000
Antimony, ore and concentrate	Anzobskii mining-beneficiation complex (Comsup Commodities Inc., 100%)	Dzhizhikrutskoye antimony-mercury deposit	350,000
Antimony, metal	Isfara hydrometallurgical plant (Government, 100%)	Isfara	500
Arsenic	Mosrif deposit	NA	NA
Bismuth	Isfara hydrometallurgical plant (Government, 100%)	Isfara	500
Do.	Leninabad mining-beneficiation complex (Government, 100%)	Yuzhno-Yangikanskiy deposit	25
Bismuth, copper, fluorspar, gold, silver, zinc (ore processing)	Adrasmanskii mining-beneficiation complex (Government, 100%)	Kanimansurskoye deposit	650,000
Boron	Yakarkharskoye deposit	Badakhshan region	NA
Cement	JSC Tajikcement Ltd.	Dushanbe	1,200,000
Do.	Yovon Cement (Huaxin Gayur Cement Co. Ltd. and Gayur LLC)	Yovon District, Khatlon Province	1,000,000
Do.	Ghayur-Sughd Cement (Tajik Ghayur Co. and Hauksin Central Asia Investment)	Ghafurov District	1,200,000
Do.	Chjuntsay-Taboshar Cement	NA	600,000
Do.	LLC Tojikiston	Kharangon village, Varzob District	70,000
Do.	Isfarinsky Cement	Isfarinsky region	1,000,000
Do.	Sarabansky Cement	NA	70,000

See footnotes at the end of table

TABLE 2—Continued
TAJKISTAN: STRUCTURE OF THE MINERAL INDUSTRY IN 2014¹

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity ^e
Coal		Kaisun Energy Group Ltd.	UP Fong-Yagnob, Pyandzh region	50,000
Do.		Isfara hydrometallurgical plant (Government, 100%)	Isfara	300,000
Do.		OJSC Angisht	Shurob region	32,000
Do.		do.	Shurob brown coal deposit	NA
Do.		SP Anzob	do.	NA
Copper-lead-zinc		Leninabad mining-beneficiation complex (Government, 100%)	Yuzhno-Yangikanskiy deposit	NA
Dolomite		Yavan electrochemical complex	Pashkharvoskoye deposit	NA
Fluorspar, concentrate		Takob mining-beneficiation complex	Takob and Krasnye Kholmy deposits	60,000 ²
Gold, in ore	kilograms	Aprelevka joint venture (Government, 51%, and Central Asia Minerals and Resources through subsidiary Gulf International Minerals Ltd., 49%)	Aprelevka deposit	200
Do.		Odina	NA	NA
Do.	kilograms	Darvaz joint venture	Yak-Suyskoye deposit, Khatlon Province	2,000
Do.		OOO Takom Gold	NA	NA
Do.		Tilloi Tochik	NA	NA
Do.	kilograms	JV Zarafshon Gold Company LLC (Zijin Mining Northwest Co. Ltd., 75%, and Government of Tajikistan, 25%)	Jilau, Khirskhona, Olympiyskoye, and Taror deposits, Sughd Province	828,000
Do.	do.	China Nonferrous Gold Ltd., through subsidiary LLC Pakrut, 100%	Pakrut gold project, southern portion of the Tien Shan Fold Belt	728
Gold, ore processing	do.	Kansayskaya factory	Aprelevka, Burgunda, Kyzyl-Chek, and Shkol'noye deposits	243,000 ²
Do.		Vostokredmet refinery	Qizfaquz	NA
Lead-zinc		Adrasman mining-beneficiation complex (Government, 100%)	Adrasman, Sughd Province	NA
Do.		Kansayskoye mining complex	Karamazor region	NA
Do.		Takaaliyskiy metallurgical complex	NA	NA
Do.		Zarnisor Shimoli (Tajik-China Mining Co. Ltd.)	Northern Altyn-Topkan and Pay Buloq	328,000
Do.		Tibet Summit Industry Co.	Altyn-Topkan	NA
Limestone		Dushanbe cement complex	Kharangonskoye deposit	NA
Clays (loam)		do.	Varzobskoye Ushchel'ye deposit	NA
Marble		Dal'yan Bolo deposit	Ganchinskiy region	NA
Do.		Dashtak deposit	Darvaz region	NA
Do.		Jilikul deposit	Sughd Province	NA
Mercury		Anzobskii mining-beneficiation complex (Comsup Commodities Inc., 100%)	Dzhizhikrutskoye antimony-mercury deposit	35
Petroleum		Beshentyakskoye, Kichik-Belskoye, Shaambary, and Uzunkhorskoye deposits	Southern Tajik depression	200,000
Petroleum, refined	42-gallon barrels	NA	Turshzoda town, Shahrinav district	456,000
Do.	do.	OJSC Nafrason	Kanibadam City, Sughd Province	513,000
Salt		Ashtskiy plant	Kamyshkurganskoye deposit	NA
Do.		Khoja-Sartez, Samanchi, and Tanabchi deposits	NA	NA
Do.		Voseyskiy plant	Khodzha-Muminskoye deposit	NA
Do.		Yavan electrochemical complex	Tut-Bulakskoye deposit	NA

See footnotes at end of table.

TABLE 2—Continued
TAJKISTAN: STRUCTURE OF THE MINERAL INDUSTRY IN 2014¹

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity ²
Silver	kilograms	JV Zarafshon Gold Company LLC (Zijin Mining Northwest Co. Ltd., 75%, and Government of Tajikistan, 25%)	Jilau, Sughd Province	4,000
Do.	do.	do.	Taror deposits, Sughd Province	700
Do.		Adrasman mining-beneficiation complex (Government, 100%)	Adrasman, Sughd Province	NA
Do.		Aprelevka joint venture	Aprelevka deposit	NA
Do.		Kanjol ore field (Nukrafom Co.) (Silverhill Resources Ltd.)	Gafurov District, Sughd Province	NA
Do.		Kytco BV	Akjiilga	NA
Sand and gravel	thousand cubic meters	Anvar LLC	NA	40,000
Strontium, ore		Chaltash, Chilkutan, and Davgir deposits	Khatlon Province	180,000

²Estimated; estimated data are rounded to no more than three significant digits. Do., do. Ditto. NA Not available.

¹Many 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 locations.

²Capacity estimates are totals for all enterprises that produce the commodity.