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2022 Minerals Yearbook

TURKMENISTAN [ADVANCE RELEASE]

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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 Turkmenistan

By Karine M. Renaud

In 2022, Turkmenistan's most economically important mineral deposits were bromine-iodine brine, natural gas, petroleum, and sulfur. Excluding United States production, which has been withheld to avoid disclosing company proprietary data, Turkmenistan ranked third in the world in iodine production in 2022. The country was the world's 11th-ranked (not including the United States) producer of natural gas and accounted for 1.9% of world output. Turkmenistan was the second-ranked producer of natural gas among the countries of the Commonwealth of Independent States (CIS). The country was the world's 35th-ranked producer (and 4th-ranked producer among the CIS countries) of crude petroleum (table 1; Energy Institute, 2023, p. 17, 30; Schnebele, 2024).

Minerals in the National Economy

Turkmenistan's real gross domestic product (GDP) increased by 1.8% in 2022 compared with a decrease of 4.6% (revised) in 2021 owing to an increase in hydrocarbon production and exports and an easing of the coronavirus disease 2019 (COVID–19) pandemic restrictions. In 2022, China was the main destination for natural gas from Turkmenistan and imported 32.9 billion cubic meters; Russia, 2.8 billion cubic meters; other CIS countries (Armenia, Azerbaijan, Belarus, Georgia, Kyrgyzstan, Moldova, Tajikistan, Ukraine and Uzbekistan), 2.8 billion cubic meters; and Kazakhstan, 0.3 billion cubic meters. Hydrocarbons accounted for more than 90% of total exports. The industry output increased by 6.3% in 2022 owing to an increase in construction, manufacturing, hydrocarbon and chemical processing, and building materials. The foreign direct investment (FDI) inflow was $936 million in 2022 compared with $1.3 billion in 2021 (Asian Development Bank, 2022, p. 188; 2023 p. 85; Energy Institute, 2023, p. 38; International Monetary Fund, 2023, p. 147; United Nations Conference on Trade and Development, 2023, p. 198).

Government Policies and Programs

Turkmenistan is a founding member of the CIS. In 2022, members of the World Trade Organization (WTO) agreed to initiate talks on the accession of Turkmenistan to the organization. In 2021, Turkmenistan officially applied to join the WTO (World Trade Organization, 2022; Commonwealth of Independent States, 2023).

The use and protection of the mineral resources of Turkmenistan is regulated by the Law on Subsoil 2014 (formerly the Law on Subsoil 1992), which was amended and implemented on December 23, 2014. According to the law, the subsoil and its resources throughout Turkmenistan, including the Caspian Sea sector, are the property of the state and cannot be purchased or sold. The objectives of the amended Law on Subsoil 2014 include the following: (1) protection of the interests of Turkmenistan and its citizens, the rights of subsoil users, and the country's mineral resources; (2) establishment of legal guarantees and creation of favorable conditions for the economic growth of the country and for investors. The law also states that the companies that use subsoil areas should conduct geologic exploration, efficiently use mineral resources, pay fees for the use of subsoil resources, and follow the environmental requirements to prevent contamination of the subsoil. All activities related to crude petroleum are controlled by the Hydrocarbon Resources Law of 2012. If a signed international agreement includes rules that differ from the Hydrocarbon Resource Law, then the rules of the international agreement would be applied (U.S. Department of State, 2013; Food and Agriculture Organization of the United Nations, 2014, p. 1, 6–7, 16–20; AzerNews, 2015).

In addition, according to the Law on Subsoil 2014, the use and protection of mineral resources is overseen by the Cabinet of Ministers of Turkmenistan, Federal agencies, and local authorities. The Cabinet of Ministers includes the State Commission on Mineral Resources. The licenses for exploration are issued for 6 years with the right to extend them for 2 years; the mining licenses are issued for 20 years with the right to extend them for 5 years; and the licenses for exploration and mining (combined) are issued for 25 years. The licenses with no expiration date are (1) the construction and exploitation of underground structures not related to mining minerals and (2) the construction and exploitation of underground structures for waste and crude oil and natural gas storage (Food and Agriculture Organization of the United Nations, 2014, p. 7–17; AzerNews, 2015).

In 2020, Turkmenistan and the United Nations signed a Framework program for cooperation between the United Nations and the Government in sustainable development for 2021–2025 (an updated version of the Framework program for cooperation between the United Nations and the Government in sustainable development for 2019–2025). The program includes strategies for modernization of the country's infrastructure and to attract FDI, which would reduce the country's reliance on hydrocarbon resources. The priority sectors include chemical, construction, electric power, oil and gas, and other industries (United Nations Development Programs, [undated], p. v, 5).

In 2022, the Government of Turkmenistan signed five agreements with the Governments of Turkey and Azerbaijan on the development of trade between the countries and energy, transportation, and other sectors. The following five agreements were signed: (1) Agreement on Commercial and Economic Cooperation; (2) Memorandum of Understanding (MOU) on the Establishment of a Joint Consultative Commission on the Exchange of Information on Customs Procedures at Customs Crossing Points between the Government of Turkey, the Government of Turkmenistan, and the Government of Azerbaijan; (3) MOU on the Development of Cooperation in the Field of Energy between the Government of Turkey, the

Government of Turkmenistan, and the Government of Azerbaijan; (4) MOU on the Further Development of Cooperation in the Field of Transport between the Government of Turkey, the Government of Turkmenistan, and the Government of Azerbaijan; and (5) Framework Programme for Cooperation in Science, Education and Culture between the Government of Turkey, the Government of Turkmenistan, and the Government of Azerbaijan for 2023–2025 (Presidency of the Republic of Turkey Directorate of Communications, 2022).

In 2022, the Government adopted the new National Program for Socio-Economic Development for 2022–2052. The National Program for Socio-Economic Development for 2022–2052 was intended to help diversify the economy of Turkmenistan and reduce the country's reliance on hydrocarbon resources. The priority sectors included electric power, chemicals, construction, oil and gas, and other industries (Nebit-Gaz, 2022; United Nations Development Programs, [undated], p. v, 5).

Production

Detailed production data and other information regarding mineral production for most mineral commodities in Turkmenistan, except natural gas and petroleum, have not been available for a number of years. Production estimates in table 1 are based on past levels of production and on occasional published data reported by the mass media. In 2022, ammonia (nitrogen, N content) production increased by an estimated 28%; sodium sulfate (sodium, compounds) (estimated) and sulfur (S content), by 23% each; urea (nitrogen, N content), by an estimated 14%; and cement (estimated) and natural gas, by 10% each. 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

Turkmenistan's total exports were valued at $13.5 billion,[1] compared with $9.4 billion in 2021, which was a 44% increase; and its total imports were valued at $3.6 billion compared with $4.2 billion in 2021, which was a 14% decrease. In 2020, Turkmenistan's main export partners were China (which received 75.9% of Turkmenistan's exports), Turkey (7.1%), Azerbaijan (3.8%), countries of the European Union (3.1%), and Uzbekistan (1.9%). In 2020, the main import partners were Turkey (which supplied 36.9% of Turkmenistan's imports), China (29.1%), countries of the European Union (20.8%), India (2.7%), and Japan and the United States (1.6% each) (SNG.TODAY, 2022; Internet-portal CIS, 2023; European Commission, 2024, p. 8).

In 2022, imports by Turkmenistan from the United States were valued at $48.99 million compared with $78.55 million in 2021; these included $2.6 million in organic chemicals; $1.2 million in drilling and oil equipment; $800,307 in excavating machinery; $199,382 in nonferrous metals; $191,734 in petroleum products; $155,432 in iron and steel products; and $150,595 in finished metal shapes (U.S. Census Bureau, 2023).

Commodity Review

Industrial Minerals

Cement.—In 2022, production of cement increased to 2.3 million metric tons (Mt) (estimated) from 2.1 Mt (estimated) in 2021. As of 2022, all cement plants in Turkmenistan were operated by TurkmenCement Production Association (100% Government owned). The Lebap cement plant in Koytendag, Lebap Velayat, produced 1.1 Mt of cement in 2022 (tables 1, 2; Business Turkmenistan, 2023a).

Iodine.—In 2022, Turkmenistan was the leading iodine producer in the region. The iodine was extracted from natural iodine-containing brines and from petroleum waste. The production of iodine increased to estimated 770 metric tons (t) from 746 t (revised) in 2021. Three iodine plants were operating in Balkan Velayat (Balkan Province)—the Bereket plant operated by Himiya Senagat Economic Society and the Khazar chemical plant and Balkanabat plant operated by Government-owned SI Turkmenhimiya Holding. According to the National Program for Socio-Economic Development for 2019–2025, the production of iodine in Balkan Velayat was expected to increase to 1.3 million metric tons per year (Mt/yr) by 2025. In 2022, Turkmenistan exported 490 t of iodine, which was an increase of 17% from that in 2021. Turkmenistan exported iodine to China (which received 32% of the iodine), the United Kingdom (26%), India (24%), Turkey (9%), and the Netherlands and Poland (4% each) (tables 1, 2; Business Turkmenistan, 2023b; News Central Asia, 2023; Zen Innovations AG, 2023).

Potash.—In 2019, SI Turkmenhimiya Holding provided to the Arbitration Institute at the Stockholm Chamber of Commerce of Sweden the facts of Belarus-based JSC Belgorkhimprom's failure to fulfill its obligation to construct the Garlyk potash ore and mining complex. SI Turkmenhimiya Holding wanted the Belarus company to pay $911 million in damages for terminating the contract. The potash plant was expected to have a designed production capacity of 1.4 Mt/yr; however, in the first 8 months of 2018, the plant production was only 24,000 t out of an expected 720,000 t. Although the Arbitration Institute at the Stockholm Chamber of Commerce of Sweden hearing was expected to be held in February 2022, no further information about the hearing was available (tables 1, 2; Eurasianet, 2018; Turkmenhimiya State Concern, 2018; Charger97, 2019; AFN, 2022).

Mineral Fuels

Natural Gas.—In 2022, Turkmenistan produced 87.0 billion cubic meters of natural gas, which was an increase of 9.7% compared with that in 2021. In 2022, the Government of Turkmenistan and a delegation from the Taliban agreed to restart the construction of the Turkmenistan–Afghanistan–Pakistan–India (TAPI) natural gas pipeline. In 2022 the Presidents of Turkmenistan and Pakistan discussed plans to revive the construction of the TAPI pipeline, which was stalled owing to higher costs and concerns regarding the safety of delivery points.

[1]Where necessary, values have been converted from euro area euros (EUR) to U.S. dollars (US$) at the annual average exchange rates of EUR0.951=US$1.00 for 2022 and EUR0.846=US$1.00 for 2021.

The 1,814-kilometer-long pipeline was expected to transport a total of 90 million cubic meters per day from the Galkyhysh Field. Of this total, 14 million cubic meters per day was expected to be transported to Afghanistan and 38 million cubic meters per day was expected to be transported each to Pakistan and India. In June 2022, the Governments of Turkmenistan and China resumed discussions on the construction of the fourth Central Asia–China natural gas pipeline through Turkmenistan, Uzbekistan, Tajikistan, and China (Enerdata, 2020; United Nations Conference on Trade and Development, 2021, p. 91; Big Asia, 2022; Interfax, 2022; Bhutta, 2023; Embassy Life, 2023).

Outlook

Turkmenistan's economy continued to be highly dependent on crude petroleum and natural gas exports; therefore, the country has actively continued to focus on the development of the nonhydrocarbon mineral sector through local investment and by attracting international investment. Some signs of the emphasis on the nonhydrocarbon sector are Turkmenistan's investment in the modernization of existing and construction of new iodine and bromine plants as well as the construction of cement plants. This investment is likely to result in production increases for these mineral commodities during the next few years.

References Cited

AFN, 2022, Turkmenistan hochet vzyskat' s Belarusii $911 mln. za nedostroyenniy Garlik GOK [Turkmenistan wants to recover $911 million from Belarus for the unfinished Garlyk GOK]: AFN, UE News-Release, GOK, August 7. (Accessed June 13, 2023, at https://afn.by/news/i/299500.) [In Russian.]

Asian Development Bank, 2022, Asian development outlook 2022—Mobilizing taxes for development: Mandaluyong, Philippines, Asian Development Bank, April, 407 p. (Accessed June 9, 2023, at https://www.adb.org/sites/default/files/publication/784041/ado2022.pdf.)

Asian Development Bank, 2023, Asian development outlook: Mandaluyong, Philippines, Asian Development Bank, April, 302 p. (Accessed June 9, 2023, at https://www.adb.org/sites/default/files/publication/863591/asian-development-outlook-april-2023.pdf.)

AzerNews, 2015, Turkmenistan keeps subsoil in state property: Baku, Azerbaijan, AzerNews, February 16. (Accessed June 9, 2023, at https://www.azernews.az/region/77726.html.)

Bhutta, Zafar, 2023, Negotiations begin to revive TAPI project: Karachi, Pakistan, The Express Tribune, February 1. (Accessed June 26, 2023, at https://tribune.com.pk/story/2341436/negotiations-begin-to-revive-tapi-project.)

Big Asia, 2022, Turkmeniya i Pakistan obsudili proekt gazoprovoda TAPI [Turkmenistan and Pakistan discussed TAPI pipeline]: Moscow, Russia, Big Asia, June 26. (Accessed June 26, 2023, at https://bigasia.ru/turkmeniya-i-pakistan-obsudili-proekt-gazoprovoda-tapi/). [In Russian.]

Business Turkmenistan, 2023a, Lebapskiy tsementniy zavod Turkmenistana proizvel 1,1 mln ton tsementa [Turkmenistan's Lebap cement plant produced 1.1 million tons of cement]: Business Turkmenistan, January 25. (Accessed June 13, 2023, at https://business.com.tm/ru/post/9753/lebapskii-cementniy-zavod-turkmenistana-proizvel-11-mln-tonn-cementa.) [In Russian.]

Business Turkmenistan, 2023b, Turkmenistan nachal ispol'zovat' neftyannye othody dlya proizvodstva ioda [Turkmenistan began to use oil waste for the production of iodine]: Business Turkmenistan, April 29. (Accessed June 15, 2023, at https://business.com.tm/ru/post/10167/turkmenistan-nachal-ispolzovat-neftyanye-othody-dlya-proizvodstva-ioda.) [In Russian.]

Charger97, 2019, Turkmenistan sues Belarus in Stockholm Arbitration: Moscow, Russia, Charger97, March 3. (Accessed June 15, 2023, at https://charter97.org/en/news/2019/3/11/326407/.)

Commonwealth of Independent States, 2023, Commonwealth of Independent States: Moscow, Russia, Commonwealth of Independent States. (Accessed June 8, 2023, at http://new.cisstat.org/web/guest.)

Presidency of the Republic of Turkey Directorate of Communications, 2022, Turkey, Turkmenistan and Azerbaijan sign five agreements: Ankara, Turkey, Presidency of the Republic of Turkey Directorate of Communications, December 14. (Accessed June 9, 2023, at https://www.iletisim.gov.tr/english/haberler/detay/turkiye-turkmenistan-and-azerbaijan-sign-five-agreements.)

Embassy Life, 2023, Turkmenistan obsuzhdayet s Kitayem proyekt stroitel'stva 4-i nitki gazoporvoda Turkmenistan-Kitaii [Turkmenistan discusses with China the construction of 4th Turkmenistan—China natural gas pipeline project]: Moscow, Russia, Embassy Life, January 9. (Accessed June 26, 2023, at https://embassylife.ru/2023/01/09/14695/.) [In Russian.]

Enerdata, 2020, Turkmenistan-Afghanistan-Pakistan-India gas pipeline will be delayed again: Grenoble Cedex 1, France, Enerdata. (Accessed May 19, 2023, at https://www.enerdata.net/publications/daily-energy-news/turkmenistan-afghanistan-pakistan-india-gas-pipeline-will-be-delayed-again.html.)

Energy Institute, 2023, Statistical review of world energy (72nd ed.): London, United Kingdom, Energy Institute, 60 p. (Accessed June 26, 2023, at https://www.energyinst.org/statistical-review.)

Eurasianet, 2018, Turkmenistan threatens Belarusian company with international arbitration: New York, New York, Eurasianet, November 6. (Accessed June 15, 2023, at https://eurasianet.org/turkmenistan-threatens-belarusian-company-with-international-arbitration.)

European Commission, 2024, European Union, trade in goods with Turkmenistan: Brussels, Belgium, European Commission, 10 p. (Accessed May 3, 2022, at https://webgate.ec.europa.eu/isdb_results/factsheets/country/details_turkmenistan_en.pdf.)

Food and Agriculture Organization of the United Nations, 2014, Zakon Turkmenistana o nedrakh [Law on subsoil]: Rome, Italy, Food and Agriculture Organization of the United Nations, 48 p. (Accessed June 9, 2023, at http://faolex.fao.org/docs/pdf/tuk145335.pdf.) [In Russian.]

Interfax, 2022, Vozobnovleniye rabot po stroitel'stvu gazaprovoda TAPI namecheno na mart [The resumption of work on the construction of the TAPI gas pipeline is scheduled for March]: Interfax, January 16. (Accessed June 15, 2023, at https://www.interfax.ru/world/815692.) [In Russian.]

International Monetary Fund, 2023, World economic outlook—A rocky recovery: Washington, DC, International Monetary Fund, April 11, 184 p. (Accessed June 9, 2023, at https://www.imf.org/en/Publications/WEO/Issues/2023/04/11/world-economic-outlook-april-2023.)

Internet-portal CIS, 2023, V 2022 gody Turkmenistan exportiroval tovarov na $12,7 mlrd [Turkmenistan exported goods worth $12.7 billion in 2022]: Minsk, Belarus, Internet-portal CIS, April 17. (Accessed June 9, 2023, at https://e-cis.info/print/108446/.) [In Russian.]

Nebit-Gaz, 2022, Turkmenistan adopted the National Program for the socio-economic development of the country for 30 years: Ashgabat, Turkmenistan, Nebit-Gaz, February 14. (Accessed June 13, 2023, at https://www.oilgas.gov.tm/en/posts/news/3953/turkmenistan-adopted-the-national-program-for-the-socio-economic-development-of-the-country-for-30-years.)

News Central Asia, 2023, Turkmenistan increases iodine production: Karachi, Pakistan, News Central Asia, January 16. (Accessed June 13, 2023, at https://www.newscentralasia.net/2023/01/16/turkmenistan-increases-iodine-production/.)

Schnebele, E.K., 2024, Iodine: U.S. Geological Survey Mineral Commodity Summaries 2024, p. 92–93.

SNG.TODAY, 2022, Uvelichenie obyema vzaimnoi torgovli mezhdu Turkmenistanom i Kitaem v 2022 godu sostavilo 53.4% [The increase in the volume of mutual trade between Turkmenistan and China in 2022 amounted to 53.4%]: Moscow, Russia, SNG.TODAY, September 13. (Accessed June 9, 2023, at https://sng.today/ashkhabad/25024-uvelichenie-obema-vzaimnoj-torgovli-mezhdu-turkmenistanom-i-kitaem-v-2022-godu-sostavil-okolo-54.html.) [In Russian.]

Turkmenhimiya State Concern, 2018, Garlyk potash mining and processing complex: Ashgabat, Turkmenistan, Turkmenhimiya State Concern. (Accessed June 15, 2023, at https://turkmenhimiya.gov.tm/factory-en/garabogazsulfat-onumcilik-birlesigi.)

United Nations Development Programs, [undated], Sustainable development cooperation framework between United Nations and the Government of Turkmenistan 2021–2025: New York, New York, United Nations [Turkmenistan], 21 p. (Accessed September 5, 2023, at https://www.undp.org/sites/g/files/zskgke326/files/2022-05/UNSDCF%202021-2025%20Eng.pdf.)

United Nations Conference on Trade and Development, 2021, World investment report 2021—Investing in sustainable recovery: Geneva, Switzerland, United Nations Conference on Trade and Development, 257 p. (Accessed May 3, 2022, at https://unctad.org/system/files/official-document/wir2021_en.pdf.)
United Nations Conference on Trade and Development, 2023, World investment report 2023—Investing in sustainable energy for all: Geneva, Switzerland, United Nations Conference on Trade and Development, 205 p. (Accessed September 5, 2023, at https://unctad.org/system/files/official-document/wir2023_en.pdf.)
U.S. Census Bureau, 2023, Country by 5-digit end-use code, annual totals, 2012–present: Suitland, Maryland, U.S. Census Bureau. (Accessed June 9, 2023, at https://www.census.gov/foreign-trade/statistics/country/index.html.)
U.S. Department of State, 2013, 2013 investment climate statement—Turkmenistan: Washington, DC, U.S. Department of State. (Accessed September 5, 2023, at https://2009-2017.state.gov/e/eb/rls/othr/ics/2013/204752.htm.)
World Trade Organization, 2022, WTO members initiate membership talks for Turkmenistan: Geneva, Switzerland, World Trade Organization, February 23. (Accessed June 9, 2023, at https://www.wto.org/english/news_e/news22_e/acc_23feb22_e.htm.)
Zen Innovations AG, 2023, Global trade tracker: Bern-Kehrsatz, Switzerland, Zen Innovations AG database. (Accessed June 13, 2023, at https://www.globaltradetracker.com/gtt/secure/gttAnalytics.action#aa879568-1bc8-4d97-ae6f-aaf205941e59.)

TABLE 1
TURKMENISTAN: PRODUCTION OF MINERAL COMMODITIES[1]

(Metric tons, gross weight, unless otherwise specified)

Commodity		2018	2019	2020	2021	2022
METALS						
Iron and steel, products, rolled		140,000 e	NA	NA	160,000	160,000 e
INDUSTRIAL MINERALS						
Cement, hydraulic[e]		2,700,000	2,400,000	1,900,000	2,100,000	2,300,000
Clay, bentonite:						
Powder[e]		450	500	500	510	510
Other, unspecified		9,000 e	10,000	10,000 e	10,200 e	10,200 e
Gypsum[e]		110,000	110,000	116,000	122,000	120,000
Iodine		540 e	600 e	700 e	746 r	770 e
Lime[e]		23,000	24,000	25,000	26,000	27,000
Nitrogen, N content:						
Ammonia		490,000 e	600,000 e	660,000	468,923 r	600,000 e
Urea		350,000 e	451,000 e	766,500	989,111 r	1,130,000 e
Potash, K_2O content		19,000 e	35,000	20,000 e	20,000 e	NA
Salt		100,000 e	105,000 e	94,644 r	96,000 r	90,000
Sodium, compounds, sodium sulfate[e]		119,000	86,000	91,000	91,000	112,000
Sulfur, S content		914,000 e	660,000 e	700,000 e	700,000 e	862,000
MINERAL FUELS AND RELATED MATERIALS						
Natural gas	million cubic meters	61,500	63,200	66,000 r	79,300 r	87,000
Petroleum:						
Crude, including condensate	thousand 42-gallon barrels	90,650 r	88,900 r	76,650 r	88,200 r	89,250
Refinery	do.	40,950 r	42,700	41,300	39,550 r	40,000 e

[e]Estimated. [r]Revised. do. Ditto. NA Not available.

[1]Table includes data available through May 10, 2023. 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, bromine, coal, dolomite, epsomite, bench gravel, kaolin, and limestone may have been produced, but available information was inadequate to make reliable estimates of output.

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

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies, main facilities, or deposits	Location of main facilities	Annual capacity[e]
Bromine	metric tons	SI Turkmenhimiya Holding	Plant at Cheleken Peninsula, Balkan Velayat	NA.
Do.	do.	do.	Plant at Balkanabat, Balkan Velayat	240.
Cement		TurkmenCement Production Association (Government, 100%)	Jebel cement plant, Jebel, Nebitdag region, Balkan Velayat	1,000 clinker.
Do.		do.	Lebap cement plant, Koytendag, Turkmenabat region, Lebap Velayat	1,100.
Do.		do.	Kelete cement plant, 70 km west of Ashgabat, Ahal Velayat	1,000.
Clay, bentonite	metric tons	Oglanly Mine	Oglanly region, Balkan Velayat	500.
Do.		Yashlyk Co.	Ak Buday region, Ahal Velayat	NA.
Gypsum		IA Turkmenmineral	Tagorin deposits, Mukry, Lebap Velayat	NA.
Do.		Krasnovodsk Aylagy (anhydride) deposit	9 km east of Turkmenbashy	NA
Do.		Wastes from Gaurdak sulfur deposit	Gora Gaurdak Mine, Lebap Velayat	NA.
Iodine	metric tons	Himiya Senagat Economic Society	Bereket plant, Bereket, Balkan Velayat	350.
Do.	do.	SI Turkmenhimiya Holding (Government, 100%)	Khazar chemical plant, Cheleken Peninsula, Balkan Velayat	230.
Do.	do.	do.	Balkanabat plant, Balkan Velayat	355.
Limestone		Bakhcha deposit	5 km south of Kolyata station of Balkan Velayat	NA.
Do.		Gyaurs deposit	3 km south of Gyaurs station of Balkan Velayat	NA.
Do.		NA	2 km from mountains in Turkmenbashy	NA.
Do.		Shadam deposit	3 km west of Turkmenbashy	NA.
Do.		Umgal deposit	North shore of Soimonovskoy Bay	NA.
Limestone for cement		Gaurdak deposit	Quarries 4 km northeast of Gaurdak	NA.
Natural gas	million cubic meters	China National Petroleum Corp. (CNPC)	Amu-Darya Basin	5,000.
Do.	do.	Dauletabad; Doviet-Denmez (Donmez); Gygyrlinskoye; Ioltan (South Yolotan-Osman); North and South Naipskiye; Shatlyk; and Yashlar gasfields (SI Turkmengaz)	Onshore fields in eastern and southwestern parts of the country and offshore in the Caspian Sea; Murgab basin; and Dashoguzskiy	90,000.
Do.	do.	Eni S.p.A. (Government of Italy, 32.4%; Eni S.p.A., 5.35%; The Vanguard Group Inc., 2.26%; others, 60%)	Burun project, Nebitdag Block	60.
Nitrogen, N content:				
Ammonia		SI Turkmenhimiya Holdings	Ammonia plant in Mary City	660.
Urea		do.	Garabogazcarbamid plant, Balkan Velayat	890.
Petroleum:				
Crude	thousand 42-gallon barrels	Barsa-Gelmesskoye; Burunskoye, Cheleken; Gograndagskoye; Ioltan (South Yolotan-Osman); Kamyshldzhinskoye; Korturtepinskoye; Kum Dag; Kuydzhikskoye; Okaremskoye; and Yashlar oilfields	Centered in Caspian plain in western Turkmenistan and in offshore oilfields to the west of the Cheleken Peninsula in the Caspian Sea	81,000.
Do.	do.	Dragon (Turkmenistan) Ltd. (Dragon Oil Plc, 100%)	Cheleken basin, eastern section of Caspian Sea	35,000.
Do.	do.	Eni S.p.A.	Nebitdag Block, Balkan Velayat	3,000.
Refined	do.	Turkmenbashy Complex of Oil Refineries (TCOR) (Government, 100%)	Refineries in Lebap and Balkan Velayats	78,000.[3]
Potash		SI Turkmenhimiya Holding	Garlyk processing plant, southeastern Turkmenistan	24.

See footnotes at end of table.

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

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies, main facilities, or deposits	Location of main facilities[2]	Annual capacity[e]
Salt:				
Iodized salt		Guwlyduz Enterprise	Guwlyduz salt factory in Balkan Velayat	60.
Rock salt		Gaurdak deposit	8 km from Gaurdak	15.
Do.		Karikan deposit	60 km northwest of Kelifa City	NA.
Do.		Khodja-i-Kon deposit	23 km northwest of Garlyk	NA.
Do.		Kugi-Tang deposit	44 km north of Garlyk	2.
Do.		Lyalim-Kan deposit	43 km north of Garlyk	NA.
Do.		Torangly deposit	20 km southwest of Uzun-Su, Balkan Velayat	NA.
Do.		Uzun-Kuduk deposit	22 km north of Garlyk	2
Salt brine		Baba-Khodja deposit	23 km southwest of Neftedag, Balkan Velayat	NA.
Do.		Kurdolayn deposit	45 km north of Gasan-Kuli Gulf	NA.
Do.		Kuuli deposit	40 km north of Turkmenbashy	NA.
Do.		Malla-Kara deposit	Along the Uzboi Channel	NA.
Do.		Sandyk deposit	Southern part of Mikhailov Gulf	NA.
Do.		Sazykly deposit	On the shore of Balkan gulf	NA.
Do.		Sultan-Sanjar deposit	Left shore of Amu-Darya River	NA.
Do.		Teke-Nemkzar deposit	Er-Oylan area, Badkhyz region	NA.
Sodium sulfate		Ak-Gez and Torangly deposits	Deposits at Uzun-Su Station	NA.
Do.	metric tons	Karabogazsulfate Association	Bekdash, Kyzyl-Kup, Umachal deposits, Kara-Bogaz-Gol Lagoon (off the Caspian Sea)	100.
Do.	do.	SI Turkmenhimiya Holding	Garabogazcarbamid plant, Balkan Velayat	400.
Do.		NA	Deposit near mountains in Ashgabat	NA.
Steel, rolled		Turkmen metallurgical plant (Government, 100%)	Plant near Ashgabat	160.
Sulfur		Kurkutly deposit	70 km northeast of mountains in Turkmenbashy	NA.
Do.		Kyrk-Djul'ba deposit	Central Karakum	NA.
Do.		Turgai-Dak deposit	15 km north of Bala-Ishem, Balkan Velayat	NA.
Do.		State Concern Turkmengas (Government, 100%)	Three plants, Galkynysh, Mary Velayat	600.
Sulfuric acid		SI Turkmenhimiya Holding	Plant in Turkmenabat, Lebap Velayat	500.

[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 locations.

[2]Abbreviations used for units of measure in this table are as follows: km—kilometer.

[3]Capacity estimates are totals for all enterprises that produce refined petroleum.