



# 2019 Minerals Yearbook

---

**AZERBAIJAN [ADVANCE RELEASE]**

---

# THE MINERAL INDUSTRY OF AZERBAIJAN

By Elena Safirova

Azerbaijan produced a wide range of metals and industrial minerals, including aluminum, bentonite, copper, gold, iodine, limestone, silver, and steel; it also was a significant producer of natural gas and crude petroleum. The Government was making concerted efforts to use proceeds from hydrocarbon exports to develop its mineral industry, in particular, its ferrous metallurgy, chemical, and petrochemical sectors. Azerbaijan's importance as a world mineral producer, however, was based on its production of crude petroleum and, more recently, its production of natural gas. Oilfield and gasfield development was concentrated in two projects—the Azeri-Chirag-Guneshli (ACG) offshore oilfield complex and the Shah-Deniz offshore gasfield (tables 1, 2; U.S. Energy Information Administration, 2019).

## Minerals in the National Economy

In 2019, the real gross domestic product (GDP) of Azerbaijan increased by 2.2%. The nominal GDP amounted to 81.68 billion manats (about \$48.05 billion),<sup>1</sup> and industrial production contributed 41.4% to the GDP. Mining and quarrying accounted for 69.9% of the country's industrial output, whereas the rest of the industrial output was produced by manufacturing (25.1%) and electricity, heating, and water production and distribution (4.3%). In 2019, industrial production increased by 1.8% and production by the extracting sector increased by 0.4% compared with that in 2018 (State Statistical Committee of the Republic of Azerbaijan, 2020, p. 18–25; 442–447).

In 2019, Azerbaijan exported about \$19.5 billion worth of goods and services, which was a 2.0% decrease compared with export revenues in 2018. Of \$19.5 billion, about 76% came from exports of petroleum; 12%, natural gas; 2.4%, petroleum products; and 1.2%, base metals and articles made of them. The main export partners of Azerbaijan were Italy (which received 28.7% of Azerbaijan's total exports), Turkey (14.6%), Israel (6.8%), India (4.9%), Germany (4.7%), China (3.8%), Russia (3.7%), Spain (3.6%), Czechia (3.3%), and Georgia (3.0%) (State Statistical Committee of the Republic of Azerbaijan, 2020, p. 604, 605, 613, 615, 620).

Azerbaijan's total imports in 2019 were valued at about \$13.67 billion, which was a 6.5% decrease compared with that in 2018. The country's major import partners during the year were Russia (which provided 16.8% of Azerbaijan's imports), Turkey (12.0%), China (10.5%), Switzerland (9.0%), the United States (5.6%), Germany (5.2%), Ukraine (3.4%), and Iran (3.3%) (State Statistical Committee of the Republic of Azerbaijan, 2020, p. 604, 605, 612).

## Production

In 2019, Azerbaijan's production of lime (for construction) increased by 45%; copper, by 34%; natural gas, by 28%;

gypsum, by 21%; mined silver, by 18%; construction sand, by 12%; salt, by 7.6%; and gold, by 6.8%. Limestone production decreased by 26%; aluminum metal, by 24%; and raw steel, by 14%. These and other data on mineral production are in table 1.

## Structure of the Mineral Industry

Table 2 is a list of major mineral industry facilities.

## Commodity Review

### Metals

**Iron and Steel.**—In 2019, Azerbaijan produced about 326,400 metric tons (t) of raw steel, which was a 14% decrease compared with that in 2018; about 49,600 t of steel pipe (a 4.0% increase compared with that in 2018); and about 300,600 t of steel rebar (a 2.7% decrease compared with that in 2018). OOO Baku Steel Co. (Baku Steel) was the only steel producer in the country; it had a total steel-production capacity of 1.1 million metric tons per year (Mt/yr) (tables 1, 2; Metaltorg.ru, 2020).

In October 2018, Baku Steel signed an agreement with CAMC Engineering of China for construction of a new \$1.17 billion metal-processing plant in the country. The plant would be called the Azerbaijan Integrated Steel Mill complex and was to be built in the city of Ganja. When completed, the plant would have the capacity to produce 1.25 Mt/yr of steel products, including 700,000 metric tons per year of flat-rolled steel (tables 1, 2; Metalinfo.ru, 2018).

### Industrial Minerals

**Cement.**—In 2019, cement production in Azerbaijan increased by 1.3% compared with that in 2018, to about 3.5 Mt. Azerbaijan had three cement plants—Norm sement, OJSC Holcim (Azerbaijan), and Qazax sement—which had a combined production capacity of 5.6 Mt/yr. In 2019, the country exported 4,000 t and imported 36,000 t of cement. Holcim (Azerbaijan) announced plans to expand its exports to Georgia, Kazakhstan, Russia, and Uzbekistan. Overall, in 2019, Azerbaijan produced construction materials valued at 771 million manats (about \$453.5 million), which was a 5% increase compared with the value in 2018 (Jcement.ru, 2020).

**Clay (Bentonite).**—In 2019, bentonite production in Azerbaijan increased by 4.8% compared with that in 2018, to about 222,500 t. The sole producer of bentonite in the country was JV AzRosPromInvest, which mined the Dash-Salakhinskoye bentonite deposit in Qazax region. The total resources of the deposit were estimated to be 83 million metric tons (Mt) of bentonite. Azerbaijan has other large bentonite deposits, in particular, the Aploidskoye deposit and the Khyzyn group of bentonite deposits, which had combined resources of about 180 Mt of bentonite; as of 2019, however, no bentonite production was taking place at those deposits (Belousov and Krupskaya, 2019, p. 83; Azrosprominvest, 2020).

<sup>1</sup>Where necessary, Azerbaijani manats (AZN) were converted to U.S. dollars (US\$) at the annual average exchange rate of 1.7000AZN=US\$1.00 for 2019.

**Natural Gas.**—In 2019, Azerbaijan increased natural gas production by 16.3% compared with that in 2018, to about 35.6 billion cubic meters; production of commodity natural gas increased by 27.6% to about 24.5 billion cubic meters. In 2019, Azerbaijan exported natural gas to Georgia (about 2.4 billion cubic meters) and Turkey (about 9.2 billion cubic meters). About 2.8 billion cubic meters of the natural gas exported to Turkey was transported by means of the Southern Gas Corridor (SGC), which began operations in July 2019. The SGC project included three pipelines—the Trans-Adriatic Pipeline [TAP; which was 878 kilometers (km) long], the Trans-Anatolian Pipeline (TANAP; 1,816 km long), and the South Caucasus Pipeline (487 km long). The SGC project received a \$750 million syndicated loan through the World Bank for construction of the TANAP. The chain of pipelines was expected to become fully operational in 2020. Albania, Azerbaijan, Bulgaria, Georgia, Greece, Italy, and Turkey were participants in the SGC projects (table 1; Zotin, 2017; Lenta.ru, 2018; Thomson Reuters, 2019; Sputniknews.ru, 2020).

The Ministry of Energy expected total natural gas production to reach 40 billion cubic meters in 2020, about one-half of which would be produced at the Shah-Deniz field. In 2020, Azerbaijan planned to export about 16 billion cubic meters of natural gas by means of the SGC, of which 6 billion cubic meters would be exported to Turkey and 10 billion cubic meters would be exported to Europe (Zotin, 2017; Abbasova, 2020).

The contract for the Shah-Deniz development was signed and ratified by the Parliament of Azerbaijan in 1996. The participants of the project were BP p.l.c. of the United Kingdom, which was the operator of the project and received 28.8% of the output; Türkiye Petrolleri A.O. (TPAO) of Turkey (19%); State Oil Co. of Azerbaijan (SOCAR) (16.7%); Petronas Global of Malaysia (15.5%); PAO Lukoil of Russia (10%); and Naftiran Intertrade Co. Ltd. (NICO) of Switzerland (10%). In 2019, most gas production from the Shah-Deniz field was carried out at the Alfa and Bravo platforms (Angi.ru, 2019).

**Petroleum.**—In 2019, crude petroleum production decreased by 3.2% to about 273 million barrels, and between 2015 and 2019, petroleum production decreased by about 9.6%. About two-thirds of petroleum production in Azerbaijan took place at the ACG complex. According to SOCAR, petroleum production at the ACG field had been decreasing since 2010. The ACG field is located about 100 km east of Baku in the Caspian Sea and covers 430 square kilometers. The ACG field had an estimated 5 billion barrels of reserves; it produced mostly Azeri Light, which is a medium-light and sweet crude that is valued for its middle-distillate yield (table 1; Zotin, 2017; Abbasova, 2018; Regnum.ru, 2018; U.S. Energy Information Administration, 2020).

The ACG petroleum project was developed by a consortium of companies led by BP. The original contract of the consortium was signed in 1994, and a new contract for ACG's development was signed in September 2017 and was to be in effect through 2050. According to the new contract, BP had a 30.37% share in the project. Other participants included SOCAR (25.0%), Chevron Corp. of the United States (9.57%), Inpex Corp. of Japan (9.31%), Statoil ASA of Norway (7.27%), Exxon Mobil Corp. of the United States (6.79%), TPAO (5.73%),

Itochu Corp. of Japan (3.65%), and Oil and Natural Gas Corp. Ltd. (ONGC) of India (2.31%). ACG's production of petroleum totaled 588,000 barrels per day (bbl/d), including 137,000 bbl/d at the Central Azeri platform, 124,000 bbl/d at the Western Azeri platform, 117,000 bbl/d at the Deep Water Guneshli platform, 82,000 bbl/d at the Eastern Azeri platform, 77,000 bbl/d at the Western Chirag platform, and 51,000 bbl/d at the Chirag platform (Regnum.ru, 2018; U.S. Energy Information Administration, 2020).

## Outlook

In 2019, Azerbaijan continued to focus its attention on petroleum and natural gas production but also made efforts to reinvest the proceeds from hydrocarbon exports in other economic sectors, such as ferrous and nonferrous metallurgy. In the next few years, it is likely that petroleum production will decrease because reserves in Azerbaijan are currently limited. Gold, copper, and steel production are likely to increase when the mines of Anglo Asian and Azer Gold reach their production capacities, some other polymetallic deposits reach the production stage, and ferrous metal production capacity is expanded.

## References Cited

- Abbasova, N., 2018, Sutochnyi ob'em dobychi nefi v Azerbaidzhane v 2017 g sostavil 729 tys barreley—OPEC [Daily petroleum production in Azerbaijan in 2017 was 729 thousand barrels—OPEC]: Interfax.az, June 8. (Accessed October 7, 2020, at <http://interfax.az/view/735955>.) [In Russian.]
- Abbasova, N., 2020, Azerbaijan v 2019 g sokratil dobychu nefi na 3,4%, uvelichil gazodobychu pochni na 17% [In 2019, Azerbaijan decreased petroleum production by 3.4%, increased gas production by almost 17%]: Interfax.az, January 16. (Accessed October 10, 2020, at <https://interfax.az/view/789302>.) [In Russian.]
- Angi.ru, 2019, Dobycha gaza v Azerbaidzhane v 2020 godu prevysit 40 mlrd kubometrov [Gas production in Azerbaijan in 2020 will exceed 40 billion cubic meters]: Angi.ru, May 30. (Accessed October 10, 2020, at <https://www.angi.ru/news/2871878-%D0%94%D0%BE%D0%B1%D1%8B%D1%87%D0%B0-%D0%B3%D0%B0%D0%B7%D0%B0-%D0%B2-%D0%90%D0%B7%D0%B5%D1%80%D0%B1%D0%B0%D0%B9%D0%B4%D0%B6%D0%B0%D0%BD%D0%B5-%D0%B2-2020-%D0%B3%D0%BE%D0%B4%D1%83-%D0%BF%D1%80%D0%B5%D0%B2%D1%8B%D1%81%D0%B8%D1%82-40-%D0%BC%D0%BB%D1%80%D0%B4-%D0%BA%D1%83%D0%B1%D0%BE%D0%BC%D0%B5%D1%82%D1%80%D0%BE%D0%B2/>.) [In Russian.]
- Azrosprominvest, 2020, Home page: Azrosprominvest. (Accessed October 10, 2020, at [http://www.azrpi.com/index.php?id=2&sub\\_id=21&lang=3](http://www.azrpi.com/index.php?id=2&sub_id=21&lang=3).)
- Belousov, P. E., and Krupskaya, V.V., 2019, Bentonitovyye gliny Rossii i stran blizhnego zarubezh'ya [Bentonite clays of Russia and neighboring countries]: Scientific and technical journal Georesursy [Georesources], v. 21, no. 3, September 1, p. 79–90. (Accessed October 10, 2020, at <https://geors.ru/media/pdf/11Belousov.pdf>.) [In Russian.]
- Jcement.ru, 2020, Proizvodstvo tsementa v Azerbaidzhane sokratilos' na 24% [Cement production in Azerbaijan decreased by 24%]: Jcement.ru, February 25. (Accessed October 10, 2020, at <https://jcement.ru/content/news/proizvodstvo-tsementa-v-azerbaydzhan-sokratilos-na-24/>.) [In Russian.]
- Lenta.ru, 2018, Azerbaijan otkryl gazoprovod v Evropu [Azerbaijan opened a gaspipe to Europe]: Lenta.ru, May 29. (Accessed October 10, 2020, at [https://lenta.ru/news/2018/05/29/az\\_gas/](https://lenta.ru/news/2018/05/29/az_gas/).) [In Russian.]
- Metalinfo.ru, 2018, V Azerbaidzhane poyavitsya novyi metallurgicheskiy zavod [Azerbaijan will get a new metal-processing plant]: Metalinfo.ru, October 12. (Accessed October 10, 2020, at <https://metalinfo.ru/ru/news/105971>.) [In Russian.]

Metaltorg.ru, 2020, Ob'em proizvodstva v metallurgii Azerbaidzhana za god snizilsya [In the past year the quantity produced in metal processing of Azerbaijan decreased]: Metaltorg.ru, January 27. (Accessed October 10, 2020, at <https://www.metaltorg.ru/n/9ADD99>.) [In Russian.]

Regnum.ru, 2018, Azerbaidzhan sokratil dobychu nefi v 2017 godu na 7% [Azerbaijan reduced petroleum production by 7% in 2017]: Regnum.ru, February 17. (Accessed October 10, 2020, at <https://regnum.ru/news/economy/2381506.html>.) [In Russian.]

Sputniknews.ru, 2020, Azerbaijan sil'no narastil dobychu gaza: nuzhno eksporteram, nuzhno potrebitelyam [Azerbaijan significantly increased gas production—Exporters need it, and consumers need it]: Sputniknews.ru, January 19. (Accessed October 10, 2020, at <https://az.sputniknews.ru/economy/20200119/422881849/azerbaidzhan-dobycha-jeksport-potreblenie-prirodnogo-gaza.html>.) [In Russian.]

State Statistical Committee of the Republic of Azerbaijan, 2020, Statistical yearbook of Azerbaijan: Baku, Azerbaijan, State Statistical Committee of the Republic of Azerbaijan, 769 p. (Accessed October 10, 2020, at [https://www.stat.gov.az/menu/6/statistical\\_yearbooks/source/stat-yearbook\\_2020.zip](https://www.stat.gov.az/menu/6/statistical_yearbooks/source/stat-yearbook_2020.zip).)

Thomson Reuters, 2019, Southern Gas Corridor project attracts \$750 mln syndicated loan: Thomson Reuters, June 30. (Accessed October 10, 2020, at <https://www.reuters.com/article/energy-azerbaijan-gas/southern-gas-corridor-project-attracts-750-mln-syndicated-loan-idUSL8N1TW0KA>.)

U.S. Energy Information Administration, 2019, Azerbaijan: U.S. Energy Information Administration Country Analysis Brief. (Accessed October 10, 2020, at <https://www.eia.gov/international/analysis/country/AZE>.)

U.S. Energy Information Administration, 2020, Azerbaijan: U.S. Energy Information Administration Country Analysis Brief. (Accessed October 10, 2020, at <https://www.eia.gov/international/analysis/country/AZE>.)

Zotin, Aleksandr, 2017, Azerbaijan: vostochnaya skazka dlinoy v 30 let—Sravnitel'naya istoriya neftezavisimyyh ekonomik kontsa XX-nachana XXI veka [Azerbaijan—A 30-year-long oriental fairytale—A comparative history of oil dependent economies in the end of XX-beginning of the XXI century]: Carnegie.ru, March 24. (Accessed October 10, 2020, at <https://carnegie.ru/2017/03/24/ru-pub-68386>.) [In Russian.]

TABLE 1  
AZERBAIJAN: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

(Metric tons, gross weight, unless otherwise specified)

Commodity	2015	2016	2017	2018	2019
<b>METALS</b>					
Aluminum, metal, primary	53,303	36,811	28,500	47,487	36,202
Copper, mine, concentrates, Cu content	969	1,947	2,063	1,650	2,213
Gold, mine, Au content kilograms	2,229	1,895	3,667	3,476	3,712
Iron ore, mine:					
Gross weight	127,600	25,500	--	--	--
Fe content, 48% Fe	61,200	12,200	--	--	--
Iron and steel, steel:					
Raw steel	302,015	345,340	387,258	381,617	326,418
Products:					
Pipe	29,787	53,772	45,089	47,752	49,645
Rebar	223,413	235,033	251,418	309,118	300,648
Silver, mine, Ag content kilograms	133	320	3,429	3,229	3,820
<b>INDUSTRIAL MINERALS</b>					
Cement, hydraulic thousand metric tons	2,683	2,310	2,955	3,445	3,488
Clay, bentonite	53,958	49,328	225,288	212,336 <sup>r</sup>	222,519
Gypsum, mine	130,284	110,501	33,013	12,043 <sup>r</sup>	14,535
Iodine	210	208	198	185	190
Lime, construction	16,500	27,448	29,795	30,800	44,600
Salt, marketable	4,743	4,690	4,985	4,208	4,526
Stone, sand, and gravel, construction:					
Sand	752,659	367,821	942,645	972,892	1,088,255
Stone, crushed, limestone	345,092	553,138	585,229	485,878	358,325
<b>MINERAL FUELS AND RELATED MATERIALS</b>					
Natural gas <sup>2</sup> million cubic meters	19,236	18,718	18,186	19,207	24,514
Petroleum:					
Crude <sup>3,4</sup> thousand 42-gallon barrels	302,000	298,000	281,000	282,000	273,000
Refinery <sup>5</sup> do.	46,600	49,800	42,200	47,300	48,300

<sup>r</sup>Revised. do. Ditto. -- Zero.

<sup>1</sup>Table includes data available through October 1, 2020. All data are reported unless otherwise noted. Estimated data are rounded to no more than three significant digits.

<sup>2</sup>Only gas sold as a commodity; includes associated gas.

<sup>3</sup>Only marketable; includes gas condensate.

<sup>4</sup>Production reported in metric tons as follows: 2015—41,569,500; 2016—40,999,100; 2017—38,688,400; 2018—38,814,300; and 2019—37,501,200.

<sup>5</sup>Production reported in metric tons as follows: 2015—5,450,000; 2016—5,829,200; 2017—4,935,600; 2018—5,534,500; and 2019—5,651,100.

TABLE 2  
AZERBAIJAN: STRUCTURE OF THE MINERAL INDUSTRY IN 2019<sup>1</sup>

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners		Locations or deposit names	Annual capacity <sup>c</sup>
Alumina		Ganja refinery [Azeraluminum (Azeral) (Government, 100%)]		Ganja plant <sup>2</sup>	450,000
Aluminum		OJSC Azerbaijan Aluminum (Det. Al. Aluminum) [Azeraluminum (Azeral) (Government, 100%)]		Sumqayit plant <sup>2</sup>	60,000
Do.		do.		Ganja Aluminum plant	50,000
Cement		Norm sement (Norm LLC)		Gyzyl dash, Karadagly region	5,600,000
Do.		OJSC Holcim (Azerbaijan) (LafargeHolcim Group)		Baku	NA
Do.		Qazax sement (Akkord Corp.)		Dash Slahli villaga, Qazax region	NA
Clay, bentonite		JV AzRosPromInvest		Dash-Salakhlinskoye deposit	250,000
Copper, ore		Anglo Asian Mining plc [R.V. Investment Group Services, 49%, and Government, 51%]		Gedabek, Gosha, and Gadir Mines	NA
Gold, Au content	kilograms	do.		do.	2,000
Do.		ZAO AzerGold [Azerbaijan International Mineral Resources Operating Co. (AIMROC)]		Chovdar Mine, near Ganja	NA
Iodine		OOO Azer-Yod		Plant in Neftchala	NA
Iron ore, marketable, Fe content		OAO Dashkesan Filizsaflashdirma complex <sup>2</sup>		Dashkasan region	70,000
Lime		AAC Co.		Plant in Baku region	65,000
Natural gas, processing		NA		Plant in Karadagly region	NA
Petroleum and natural gas:					
Crude petroleum and gas condensate	thousand 42-gallon barrels	Azerbaijan International Operating Co. (AIOC) in conjunction with BP p.l.c. (30.37%), State Oil Company of Azerbaijan Republic (SOCAR) (25.00%), Chevron Corp. (9.57%), Inpex Corp. (9.31%), Statoil ASA (7.27%), Exxon Mobil Corp.(6.79%), Türkiye Petrolleri A.O. (TPAO) (5.73%), Itochu Corp. (3.65%), and Oil and Natural Gas Corp. Ltd. (ONGC) (2.31%)		Azeri-Chirag-Guneshli (ACG) offshore oilfields in the Caspian Sea	400,000
Natural gas		International consortium consisting of BP p.l.c. (28.8%) , Türkiye Petrolleri A.O. (TPAO) (19.0%), State Oil Company of Azerbaijan Republic (SOCAR) (16.7%), Petronas Global (15.5%), PAO Lukoil (10.0%), and Naftiran Intertrade Co. Ltd. (NICO) (10.0%)		Shah-Deniz gas condensate field	NA
Refined petroleum		State Oil Company of Azerbaijan Republic (SOCAR)		Heydar Aliyev Baku refinery	6,000,000 <sup>4</sup>
Rock salt		NA		Hehram and Pusyan deposits, Naxcivan region	NA
Silver		Anglo Asian Mining plc [R.V. Investment Group Services, 49%, and Government, 51%]		Gedabek, Gosha, and Gadir Mines	NA
Do.		ZAO AzerGold [Azerbaijan International Mineral Resources Operating Co. (AIMROC)]		Chovdar Mine, near Ganja	NA
Steel:					
Raw		OOO Baku Steel Co.		Baku steel mill	400,000
Pipe, tubes		do.		Sumqayit pipe plant	55,000
Rebar		do.		Baku plant	350,000

<sup>c</sup>Estimated. Do., do. Ditto. NA Not available.

<sup>1</sup>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.

<sup>2</sup>The operation was inactive as of 2019.

<sup>3</sup>Capacity estimates are totals for all enterprises that produce cement.

<sup>4</sup>Capacity for crude petroleum distillation.