UDC 553.04:338.45.34.04

K. Z. KURMANALIEV<sup>1</sup>, Mining Engineer-Geologist, grfgeology@gmail.com
A. JELISEJEVS<sup>2</sup>, PhD, Candidate of Juridical Sciences
N. KOROBOVSKY<sup>3</sup>, Chairman of the Board
O. ALEKSEEVA<sup>4</sup>, PhD

<sup>1</sup>GeoExpertProgekt, Bishkek, Kyrgyzstan <sup>2</sup>Turiba University, Riga, Latvia <sup>3</sup>Gorny kluch, Bishkek, Kyrgyzstan <sup>4</sup>LLC "Udokan copper", Udokan, Russia

# COLLISIONS OF SUBSOIL OWNERSHIP IN A TRANSITIONAL ECONOMY BY THE EXAMPLE OF MODERN KYRGYZSTAN

## Introduction

The necessity to introduce insurance premium to cover the risks became the element that allowed private subsoil users to start mining and production, despite country and political risks, the level of impact of which while discounting exceeded 10–15%.

Disclosure of parties relationships and expropriation risk of mining projects, as well as the insight for ways to overcome the presumption of mutual mistrust of the parties in relations of subsoil use is the main objective of the article.

The task is performed via study the legal titles and modes of mineral deposits operation in Kyrgyzstan, the balance of interests of the state, as the owner of the subsoil, and the subsoil user, as the owner of resources for their development, as well as the prerequisites for

geological and economic assessment for acts of regulation of mining projects by the state and opportunities regulation of political country risks of subsoil users. The study was carried out using legal and econometric methods of comparative analysis of publicly published materials, as well as the authors' own practical and empirical experience.

### Legal regimes of subsoil use in Kyrgyzstan

The legal regimes for licenses for subsoil use fall into three main areas: application-based licenses (>92% of licenses); licenses awarded on the basis of competitions and auctions (up to 7% of licens es); fractional ownership licenses (three projects) together with a licenses (one facility) obtained following the program of getting providing access to resources in exchange for investment.

For example, for the large Jeruy deposit (reserves of 74.684 tons of gold), a license was granted through a competition in 2017 with bonus payment of \$100M. The license for the Taldybulak Levoberezhny deposit (reserves of 64.545 tons of gold) was issued in 2017 shared with Kyrgyz Republic state company (40%). The only object under the Resources for Investments program is Ishtamberdy (reserves of 23.475 tons of gold), the license for which was issued in 2002 [1].

Kumtor is the most advanced of the mining industry in Kyrgyzstan. Agreements on its operation were signed with Canadian investor in 1992 having shares in the amount of 32.3% with other shares belonging to Kyrgyzstan (67.7%). Legal status was determined by concession and investment agreements, including a special (preferential) tax exceptions [1, 2].

The gold reserves estimation of Kumtor was more than 50% of the whole amount of recorded ore reserves estimation in Kyrgystan.

The mining industry in Kyrgyzstan is facing stagnation. There are 70 explored gold ore deposits in Kyrgyzstan with total reserves and resources above 68.3 million ounces, still no more than 10 that are under operations or being operated. According to legislation the investor can become a license holder, that can be withdrawn quite easily since the license regime does not determine the conditions of ownership for the subsoil product, No regulation exists! Thus Kumtor gold mine project had been taken over after 25 years of holding the license and successful operation, No matter that Kumtor has been "protected" via signing of concession and investment agreements. So far, all the parties in mining industry of Kyrgyzstan are in an environment mistrust led by institutional misconduct. Thus, investors are forced to ensure political risks by increasing the incoming cash flows in the shortest possible time, understanding that political situation is likely to be changed, No matter what changes are, institution of resource nationalism has been created as default mechanism in general. Legally rights of the owner of resources, are limited by red tape tools management of administrative government agencies, while there are no normative procedures regulating subsoil use.

Keywords: mining industry, Kumtor, deposits, licenses, political risks, rezervs, good faith DOI: 10.17580/em.2023.02.11

For the period 1992–2021 (before the external management has been forced into), those agreements underwent a number of changes [3].

Description and analyses of legal status for subsoil usage according to Kyrgyzstan  $\ensuremath{\mathsf{law}}$ 

State regulation of subsoil use is determined by constitutional norm revealing exclusive Kyrgyzstan ownership of all subsoil. Article 16 of the Constitution states that "resources are under the control and special protection of the State" [4].

Based on this provision, Article 2 of the Law of the Kyrgyz Republic on Subsoil (2018) prescribes that "the state implements a policy in the field of subsoil use on the basis of: non-discrimination of citizens and legal entities on the basis of citizenship, safety of work and the environment, management and protection of mineral resources, regulation on the basis of mutually beneficial cooperation, procedures transparency and non-admittance of restrictions for competition and monopolization" [5].

The Law on Concession in the Kyrgyz Republic of 1992 (Article 1) states that "A concession is a permission from the Government of the Republic of Kyrgyzstan to an investor to carry out a certain type of entrepreneurial activity related to leased property, land and its subsoil to him." [2].

The Civil Code of Kyrgyzstan (Article 222) defines the concept and content of property rights: "The right ..... of property is the right of a subject....recognized and ......protected by legislative acts to own, use and dispose of property at his own discretion." [6].

The payment and tax regime is established by the Tax Code (2008) and includes royalty, bonus, corporate income tax (for gold – the rate on gross income, for other minerals on the rate based on profit), license retention fees. The Subsoil Law also defines an additional payment - the investor's social package in favor of local communities (2% of gross income).

cost \$\oz	Before	1301	1401	1501	1601	1701	1801	1901	2001	2101	2201	2301	2401	2501 and
	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2004	2500	above
% from gross income	1	3	5	7	9	11	13	14	15	16	17	18	19	20

Table 1. Tax rates on the income of gold mining companies, in % of the price per ounce



		-						
Items	1991	1995	2000	2005	2010	2015	2020	
Permanent population, thousand people	4502.4	4595.9	4922	5189.6	5477.6	6019.5	6578.2	
GDP, mln.\$	52.9	1492.2	1369.6	2459.7	4616.7	6633.4	7740.5	
GDP, per capita, \$	11.7	324.7	278.3	474.0	842.8	1102.0	1176.7	
Export, mln.\$	317	412	510.9	674	1755,9	1482.9	1964.5*	
* evoluting gold equals 977.5 mln \$								





Fig. 2. Gross profitability of the project in terms of net cash flows, by years of implementation 1997–2020 ((in relation to CF \ GP · 100) [3, 15–20]

Understanding that legal institution of management in the field of subsoil use is defined as state regulation of subsoil use, still there are no special sections and norms regulating the right of ownership in the Kyrgyzstan legislation on subsoil usage. The property rights are actually carried out on by granting licenses to operate means and possess products of production along with payment of shared ownership, taxes and payments. Part of the delegated rights to subsoil products is regulated by civil law. The equality of the parties in civil law relations, due to the regulation of subsoil research and development procedures by norms and by-laws, may be characterized by inequality of available methods to influence the process. State regulations are characterized as dominant and administrative limitations for regulation.

In accordance with the law on concessions and investments, the state can also act as party to civil law transactions in economic relations. At the same time, Article 6 of the law on concessions indicates that "the State steps back to the concessionaire the right of ownership and usage of the concession agreement objects, reserving the exclusive right to dispose." That is, there is a gap in the triad of the ownership rights. Thus, property is not subject to delegation, alienation, and in legal relations, connections, agreements, subordinates to the public order [2, 5].

However, to an even greater extent this gap in approach refers to the legal title of a subsoil license holder, where the point of ownership is not being considered at all, either from the point of common law relations, and even more from the standpoint of civil law regulations.

Both of these approaches directly contradict good faith as the fundamental principle of legal regulation of social relations, according to which, in the exercise of their rights and the performance of obligations, each party to a legal relationship must take into account the legitimate interests of its counterparty [3, 5, 7].

However, in the process of norms regulation and in the actual implementation of legal relations in the field of subsoil development, both the state and the subsoil user not only ignore opposing interests, but a priori anticipate the bad faith of the other side. This, in turn, leads to the assumption of bad faith in conduct in order to be protected against the imaginary or real bad faith of the counterparty [4, 7].

#### State requirements and processes

The State requirements are reflected in the Decree of the President of Kyrgyzstan UP No. 5 dated January 29, 2021 [8], which formulates the Kyrgyzstan economic conception of subsoil usage in general, including the following: "(a) development of nationwide deposits by companies where state has 100% ownership; (b) acquisition of equity ownership in Kyrgyzstan mining projects; (c) expedient management and subsoil usage; (d)

audit of mining projects and deposits; (e) stimulation of geological exploration; (f) implementation of international environmental standards; (g) transparent cashflows from the mining project, including into local funds."

Requirements for adjustments to subsoil use law have been proclaimed perdurable throughout the entire period of Kyrgyzstan sovereignty. They clearly correlate with regime changes in Kyrgyzstan in 2005, 2010, 2017 and 2020 [1]. In all periods, the requirements were basically around the following: the introduction of the state participation in a mining project, an increase in tax burdens, social contributions to local communities, an increase in payments for services and supplies from local producers, and always correlated to various environmental claims. In fact, this was also a manifest of the bad faith of Kyrgyzstan, as a state that constantly questions the continuity of the legal title of subsoil users with each change of political regime [3, 9].

Until 2012, the tax regime for gold mining companies was formed at the expense of royalties (1.3.5% of gross income on reserves up to 3 tons, up to 10 tons and over 10 tons), bonus (60 k ton of reserves), corporate tax from profit (10%). The total tax burden on the mining project was estimated at 9% of gross income.

After 2012, the following corporate tax was established for gold mining companies table 1.

In 2019, an additional tax for the sale of gold ore or concentrate was introduced at 3% to corporate tax. After 2012, the principle of having tax stabilization for valid licenses from the Tax Code for 20 years had not been practiced.

Currently, the Parliament of Kyrgyzstan is drafting law on the mandatory at least 30% state participation in any mining projects, and production sharing agreements 30% of the product produced. It should be noted that the production sharing agreement has never been practiced in Kyrgyzstan and has not even been considered in projects.

Thus, it is planned to deprive the developers from a good part of their license without taking into account the geological or economic assessment of the deposit, without taking into account the technological properties of deposit ores and the processing method. Many deposits with complex structure and poor refractory ores have very low indicators of internal profitability and net cash flows, the number of such deposits will increase with introduction of fractional ownership. It is impossible to call such an approach of the state conscientious [3, 7, 9].

## Kumtor severable subsoil regulation

In 1991, with the emergence of the sovereign statehood of Kyrgyzstan and in the context of a rapid decline in economic indicators, the introduction of private property institutions, the absence of gold reserves or any other reserves to develop the country, it was decided to start developing this largest resource asset of the country.

Claims and restructuring of the agreements of the Kum-

tor project are directly correlated with the price of gold, the socio-economic situation of the country and, as a result, the political standpoints for the period (**Fig. 1, Table 2**). In addition to the approved changes to the agreements, the processes of negotiations and failed attempts were carried out in 2003, 2006, 2007, 2012, 2014, 2017 [8, 10–13].

The success of the project is illustrated in Fig 2.

Negative values of the gross margin determined: in 2002 and 2006 are caused by a geotechnical accident (pit wall derailment) and in 2012 due to capital expenditures made to increase open pit and write off the costs spent on underground mining prep works (\$ 200 M and \$ 180.7 M), respectively). In further assessments and calculation of reserves, the geotechnical risk factor dominated in the correlation of geostatistical data of mineralization parameters with production costs for resource classification [3, 15–20].

**Table 3** shows the resulting economic indicators from gross income, costs and distribution of profits between Kyrgyzstan and the Canadian side (Cameco / Centerra).

The value of shares owned by the state reached the maximum of \$ 1,5 BLN in 2012.

The ownership of Public company shares did not bring any value for unprepared society where no understanding of ownership institutions existed nor investment-type instruments have been ever utilized.

# **Political Risks. Risks mitigation tools**

Article 11 of the Seoul Convention defines political risk as "the risk of expropriation or similar measures", 1985 [21, 22].

Political risk has been a constant concern of the company, its definitions and manifestations.

Over 25 years of Kumtor operation, all components of political risks (uncertainty and risk of expropriation) have been permanently increasing, and their extremes correspond to three coups d'état. Each successive coup led to a change in the ruling regime, every time increasing the possibility and the value of risk. Uncertainty caused stagnation of the socio-economic development of the country. So, after the third coup d'état, external management introduction opened another phase.

	\$ USD M	Comments				
Total project income	11 343 088.90					
Total project cost	8 291 553.90					
Accrued profit	3 051 535.00					
Net Mine Cash Flow	2 615 881.20					
Actual taxes and payments per Agreement 2009, total	1 540 490.00	Including corporate tax in the value of kUSD 1379784.2				
Value of shares Shares (all the KR shares as of may 2021)*, including sells during IPO 16% in 2004	693 547.00					
Devidents	103 242.00					
Social spends	171 706.00					
Social taxes and payments, labor costs, social coverage, local services and local goods supply	2 584 517.00					
Economic effect for the Kyrgyz Republic	5 093 502.00					
Not fulfilled tax, 4% from Gross incom**	296 404.10					
** The tax on mineral base development in the value of 4% from gross profit according to Agreement 2009						

#### Table 4. The information of tax and payments distribution, and investment capital

Cusas income distribution	% of actual profit from what to be paid based on Agreement 2009						
Gross income distribution	1996–2020	2004–2020	2009–2020				
Taxes and payments, %	73.3	50.9	54.7				
Investment capital, %	26.7	49.1	45.3				

Political risk has affected the Kumtor project in many ways. Over the past few years, there have been demands to negotiate agreements governing the operation of the Kumtor mine, as well as calls for the nationalization of Kumtor. Regulators have filed claims for alleged environmental damage." [23].

Political risk minimization was managed based on the following methods[15-20, 22-32]:

a) Project financing investment insurance in 1995 (\$ 452 M);

b) Exclusive rights to assess the feasibility of developing the Kumtor Mine;

c) Preservation of the majority of votes when deciding on investment activities;

d) Full control of operations — the project operator is a 100% subsidiary of Cameco (later Centerra);

e) Organization and financing of gold sales;

f) Signing projects and agreements with the maximum number of governmental (state) institutions.

Constant blaiming in non-transparency, mistakes asset accounting and unfair stake allocation in Centerra, led Cameco to pull out of the Kumtor project. The 2009 agreement provided measures and contractual insurance mechanisms to support the state while Cameco exit from the Project. Cameco transferred 23.4 million shares from its package to Kyrgyzstan, and by the end of 2009 sold the remaining shares to several investment institutions in small blocks worth more than \$800 M. Accordingly, a de facto political risk mitigation plan has been implemented and a successful exit has been properly managed [33].

Centerra kept maintaining political risk mitigation plan. By focusing on enlarging income from the project, acquisition a number of mining projects in Canada and the USA for the period 2014–2019, accumulated equity up to 1 BLN Canadian dollars by 2020 in cash reserves). The drafted in 2022 settlement agreement [34] clearly demonstrated Centerra's readiness for the risk of expropriation [3, 7, 23].

Tons, k	Gramm\ton	Ounces, k	
76 600	3.70	9113.2	1
74 851	3.93	9455.2	2
74 768	4.11	9871.4	3
2.3	-6.2	-3.8	1 to 2
2.4	-11.0	-8.3	1 to 3
0.1	-4.5	-4.4	2 to 3
	Tons, k       76 600       74 851       74 768       2.3       2.4       0.1	Tons, k     Gramm\ton       76 600     3.70       74 851     3.93       74 768     4.11       2.3     -6.2       2.4     -11.0       0.1     -4.5	Tons, k     Gramm\ton     Ounces, k       76 600     3.70     9113.2       74 851     3.93     9455.2       74 768     4.11     9871.4       2.3     -6.2     -3.8       2.4     -11.0     -8.3       0.1     -4.5     -4.4

Table 5. The discrepancy between Estimate of Mineable Inventory (EMI) and factually implementation and consequences. The end of the whole extracted [3, 15-20]

Table 6. Discrepancy on the factual data verses the appraisal in NI 43-101, per periods and cash flows [3, 15-20, 23]

Deviede	Discrepa designed	ncies in miner and actual pa	alization, rametres.	Net Cash Flow					
Perious	0re, %	Au, g∖t	Au, Koz,%	Actual, \$ x1000	Design, \$x 1000	Discrepancy,%			
1996–2014	-32.7	-5.9	-40.6	12 646 918					
2004–2009	7.9	-12.8	-3.8	347 586	289 300	-20.1			
2008–2014	-9.5	2.8	-3	997 869	501 974	-98.8			
2009–2017	-27.6	-1.8	-25.7	1 417 642	513 293.1	-176.2			
2012-2026*	-18.4	3.2	-10.9	1 620 699	2 093 895	22.6**			
2015-2026*	-32	-7.4	-37.1	1 507 465	578 079	-160.8			

\*Recalculated to a similar period in 2020

 $^{stst}$  including the sunk costs for underground mining and open pit expansion in the value of \$189.7 M and 200 M [18]

Initially, risk management was carried out by a very conservative approach in the process assessment and classification of reserves by underestimating the average gold grade and reserves Table 5.

The level risk mitigation through resource and reserves underestimation is very vivid when comparing 1990 and 1995 estimates to actual data. Estimation have been practically in a single contour of a quarry according to the only existing database.

Then assessing empirical mining data the level of insurance by these methods increased, taking into account new data sets Table 6.

As subsequent events showed, this way of managing the country risks of this mining project turned out to be the most adequate from the point of view of its success for the investor, although it had the character of some dishonest in relation to the Kyrgyzstan republic as business partner, since it completely ignored the interests of the latter.

#### Conclusions

In relations between the Kyrgyz state and a private subsoil user, de facto, mutual bad faith of the parties is always presumed, when the State a priori suspects the subsoil user of dishonest manipulations during the development process (unfair distribution of income from, concealment of reserves, selective extraction, etc.), while the subsoil user knows that his rights to the deposit can be terminated by the state absolutely arbitrarily and at any time. That is why the latest sets in his economic model such a rate of return that allows him to quickly recoup his investments and be ready to leave the field at any time with less possible losses, not worrying about the completeness of development and extending the total life of mine.

The described changing of the contractual provisions for the Kumtor project are related to the expediency of the political moment, the search for options to improve the socio-economic situation in the country making use of gold price increase and are politically motivated, which is a well-known declaration to "resource nationalism" or political risk for the investor -subsoil user [9, 11, 22]. In the described case, all stages of claims, project and approved agreements are a classic manifestation of the procedures of this political and economic category. The case of application and expansion in favor of the resource owner in 2009-2010 is rather random without chain of this phenomenon was a natural consequence in the form of expropriation in May 2021.

Other deposits at the different states of development never had such a level of autonomy from the regulatory and political requirements in Kyrgyzstan. Thus, the list of demands to these projects from various social groups and persons is endless. The situation is complicated by the lack of prescribed regulatory requirements for the exploration and development of subsoil. In 2010, the norms used while USSR period had been eliminated. To date, not a single act has been introduced to replace those. Over time, the expansive and arbitrary interpretation of various requirements for geological and mining projects is increasing, which is accompanied by a downward trend in com petencies due to generational change of industry professionals.

There are no tools for equity partially ownership rights implementation. Revenues are determined through: (a) government influence, (b) economic viability, (c) gold prices, and (d) cost levels. Formal corporate governance procedures with insufficient competencies equals absence of a real impact on the mining project to stipulate production and the economy. As a result, there has been a constant increase in project requirements and expropriation risk.

There is a problem of income sharing. The determination of equity participation is spontaneous. Without taking into account the geological and economic assessment of

the object. There are no criteria, mechanisms and tools for assessing and establishing equity participation. Thus the question of defining shares is not sound still.

Investors though do not really capitalize the title of the mining projects they are investing into. Two exclusionary factors are the management of regulations and restrictions, including retroactively, as well as taxes and payments from the state. And, of course, corporate project management without competencies. In addition, there are no clear rules and restrictions (including on the protection of subsoil, etc.) due to the lack of sufficient competence of the subsoil users themselves. There are objective conditions for a conflict between the management of the administrative method of normative regulation of the industry and the corporate management of mining projects

Actually, there is no option to apply the license as property, as well no option to handle the title for any purpose. This possibility is excluded due to two factors: the fact that the State is managing the regulations and has the right to introduce changes at any time, the other one is it also manages the restrictions and limits. And there are no rules or road map to assess the risk. The fact that on many projects the corporate level is represented by people that lack competences, only adds to the crucial situation.

There are objective conditions for a conflict between administrative method of regulation in the industry and the corporate management in private mining projects.

As there are no legal instruments to regulate the rights of investors or license holders once they purchase the license, which contradicts the constitutionally and legally defined "exclusive right of ownership of the subsoil".

Ultimately, the investor's ownership of the products of his investment activity does not actually arise at all.

## References

- 1. Nikonorov V. V. Ore deposits of Kyrgyzstan. Bishkek, 2009. 482 p.
- 2. Law of the Kyrgyz Republic No. 850-XII, dated March 6, 1992, "On Concessions and Concession Enterprises in the Kyrgyz Republic". Available at: http://cbd.minjust.gov.kg/act/view/ru-ru/800 (accessed: 28.08.2022).
- 3. Kurmanaliev K. Review, analysis of empirical experience of the mining project-Kumtor gold deposit. 2021. Available at: https://analitika.akipress. org/news:5660/rus (accesed: 18.08.2022).

- The Constitution of the Kyrgyz Republic, enacted by the Law of the Kyrgyz Republic No. 59 dated 5 May 2021. Available at: http://cbd.minjust.gov.kg/ act/view/ru-ru/112213?cl=ru-ru (accessed: 28.08.2022).
- Law of the Kyrgyz Republic No. 49, dated 19 May 2018, "On Subsurface". Available at: http://cbd.minjust.gov.kg/act/view/ru-ru/111782 (accessed: 28.08.2022).
- Civil Code of the Kyrgyz Republic No.15, dated 8 May 1996, enacted by the Law of the Kyrgyz Republic No.16, dated 8 May 1996. Available at: http:// cbd.minjust.gov.kg/act/view/ru-ru/4?cl=ru-ru (accessed: 28.08.2022).
- Jelisejevs A. De-banking v Good Faith: Doctrinal Assessment of Bank's Interests when Terminating Payment Account Without Customer's Consent in the View of EU and Latvian Law. *Liverpool Law Review*. 2023. Vol. 44. pp. 183–204.
- Decree of the President of the Kyrgyz Republic No. UP-5, dated 29 January 2021, "On issues of reforming the mining industry of the Kyrgyz Republic". Available at: http://cbd.minjust.gov.kg/act/view/ru-ru/430340 (accessed: 28.08.2022).
- Cherepovitsyn A., Metkin D., Gladilin A. An algorithm of management decision-making regarding the feasibility of investing in geological studies of forecasted hydrocarbon resources. *Resources*. 2018. Vol. 7, No. 3. 47 p.
- Concession Agreement, 31 December 2003. Available at: https:// 25d82815-61f6-4049-8e72-f1c3fd81e930.usrfiles.com/ugd/25d828\_39 491dca024c43d8a7eb27d3068b850e.pdf (accessed: 30.08.2022).
- Agreement on New terms for the Kumtor Project, 30 August 2007. Available at: https://25d82815-61f6-4049-8e72 f1c3fd81e930.usrfiles. com/ugd/25d828\_c3e85ce05e224c899c04d7d42c1cd1e7.pdf (accessed: 30.08.2022).
- Agreement on New terms for the Kumtor Project, 24 April 2009. Available at: https://25d82815-61f6-4049-8e72-f1c3fd81e930.usrfiles.com/ugd/25d8 28\_4dab61fde3f44628bbe374468b8bb211.pdf (accessed: 30.08.2022).
- Investment Agreement, 31 December 2003. Available at: https://25d82815-61f6-4049-8e72-f1c3fd81e930.usrfiles.com/ugd/25d828\_15da742ea84 24988a44361a1d90e0760.pdf (accessed: 30.08.2022).
- Kitko. Available at: https://www.kitco.com/kitco-gold-index.html#10YR (accessed: 28.08.2022).
- NI 43-101 Technical Report on the Kumtor Gold Mine Kyrgyz Republic for Centerra Gold Inc., May 13, 2004. Available at: https://25d82815-61f6-4049-8e72-f1c3fd81e930.usrfiles.com/ugd/25d828\_032bc56ebad64fd7 8d78745c362db776.pdf (accessed: 30.08.2022).
- NI 43-101 Technical Report on the Kumtor Gold Mine Kyrgyz Republic for Centerra Gold Inc., March 28, 2008. Available at: https://25d82815-61f6-4049-8e72-f1c3fd81e930.usrfiles.com/ugd/25d828\_4b3e7d1483074e6 ea9c3dc468825f441.pdf (accessed: 30.08.2022).
- NI 43-101 Technical Report on the Kumtor Gold Mine Kyrgyz Republic for Centerra Gold Inc., December 16, 2009. Available at: https://25d82815-61f6-4049-8e72-f1c3fd81e930.usrfiles.com/ugd/25d828\_1aefb221569 34f5091bc71e87e8c6e1d.pdf (accessed: 30.08.2022).
- NI 43-101 Technical Report on the Kumtor Gold Mine Kyrgyz Republic for Centerra Gold Inc., December 20, 2012. Available at: https://25d82815-61f6-4049-8e72-f1c3fd81e930.usrfiles.com/ugd/25d828\_500e7d974be e48a8a0b8a4fc71b7f585.pdf (accessed: 30.08.2022).

- NI 43-101 Technical Report on the Kumtor Gold Mine Kyrgyz Republic for Centerra Gold Inc., March 20, 2015. Available at: https://25d82815-61f6-4049-8e72-f1c3fd81e930.usrfiles.com/ugd/25d828\_51a44f6db578468c 80c41bceb388af29.pdf (accessed: 30.08.2022).
- NI 43-101 Technical Report on the Kumtor Gold Mine Kyrgyz Republic for Centerra Gold Inc., 24 February 2021. Available at: https://25d82815-61f6-4049-8e72-f1c3fd81e930.usrfiles.com/ ugd/25d828\_aedf48a0bab84397be4710b09ad71676.pdf (accessed: 30.08.2022).
- The Convention Establishing the Multilateral Investment Guarantee Agency, October 11, 1985. Available at: https://www.miga.org/sites/default/files/ archive/Documents/MIGA%20Convention%20February%202016.pdf (accessed: 28.08.2022).
- Volova L. I. International investment controversies settlement mechanism. Terra Economicus. 2010. Vol. 8, No. 1. pp. 80–86.
- Centerra Gold Ink. Annual Report. 2004–2020. Available at: https://www. centerragold.com/investor/financials (accessed: 08.08.2022).
- Tošović R. Strategic and Operational Possibilities of Application of Expert Geological-Economic Evaluation of Mineral Reserves in the Conditions of the New Reality of Mineral Production. International Scientific Conference Strategic Management and Decision Support Systems in Strategic Management. 2021. pp. 309–317.
- Arbatli E. Resource nationalism revisited: A new conceptualization in light of changing actors and strategies in the oil industry. *Energy Research & Social Science*. 2018. Vol. 40. pp. 101–108.
- Borisovich V. T., Kurbanov N. Kh., Zaernyuk V. M., Seifullaev B. M. Practical risk management at gold mining companies. *Gornyi Zhurnal*. 2018. No. 11. pp. 70–75.
- Ericsson M., Drielsma J., Humphreys D. Why current assessments of 'future efforts' are no basis for establishing policies on material use a response to research on ore grades. *Mineral Economics*. 2019. Vol. 32. pp. 111–121.
- Frankevich Zh. A. Garanina A. Yu. Investment project risks: analysis and Evalution. *Mining informational and analytical bulletin (scientific and technical journal)*. 2018. No. 3. pp. 183–192.
- Kondratyev V. B. Resource nationalism. *Mining Industry Journal*. 2017. No. 5(135). p. 8.
- Yuryeva L. V., Marfitsyna M. S., Yuryeva A. R. Basic risk management methods at ente. *Fundamental research*. 2019. No. 4. pp. 131–136.
- Zaitsev A. U. Methodological Approach to Substantiation of Capital Investments of Gold Fields Based on Unit Costs. *Journal of Mining Institute*. 2019. Vol. 238(4). pp. 459–464.
- Brox H., Walker W. Allgemeines Schuldrecht. München : Verlag C.H.Beck, 2020. Vol. 44. 509 p.
- Cameco Corporation Annual Information Form. 2010. Available at: https:// www.cameco.com/annual\_report/2009/common/pdf/investors/financial\_ reporting/aif/2010/Cameco\_-\_AIF\_2010.pdf (accessed: 08.08.2022).
- 34. Global Arrangement Agreement dated 4 April 2022. Available at: https:// www.sec.gov/Archives/edgar/data/1854640/000117184322002520/ exh\_991.htm (accessed: 28.08.2022). III