Journal of Natural science

№5
2021

http://natscience.jspi.uz

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Жиззах давлат педагогика институти Табиий фанлар факултети

Табиий фанлар-Journal of Natural Science-электрон журнали

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IS MINING INDUSTRY WASTE HARMFUL TO NATURE AND HOW IS IT ADDRESSED?

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Annotation. This article describes the Marjonbulak gold mine in the Jizzakh region, the sample composition obtained from its territory, the sample composition obtained from the waste, the waste problem and their specific solutions.

Keywords: Marjanbulak, Sariqbel, Ukraine, West and Tangi, East and Goshsay, geochemical association, laboratory analysis, X-ray and microsonde analysis, mineral, "dead" area.

Every country in the world has its own natural resources, both underground and surface. Similarly, our Uzbekistan is one of the countries with its own resources. Demand for rare earth metals such as gold, silver, platinum and platinum is growing year by year. What to do for this? It is true that our production of these metals is growing rapidly. But it is no secret that in time, even these rare metals will run out of raw materials. Therefore, the need for new technologies must be met by making effective use of the age of innovation. To explain this article in more detail, I would like to briefly mention the Marjonbulak gold mining plant in Jizzakh region.

Marjanbulak gold deposit is a deposit in Gallaaral district of Jizzakh region. Bahorikor is located 9 km east of the railway station, in the foothills of the Marjanbulak in the eastern branch of the South Nurata Mountains. Industrial gold ores are mined in the Central and Western areas. The ore is located in the almost latitudinal zone of the three-sided fracture (North., Oral and South.). So far, four regions - Sariqbel, Ukraine, West and Tangi - have been surveyed, as well as East and Goshsay. The average gold content in the ore is 2-6 g / t. 25 ore bodies were identified. More than 60 minerals were formed during the mining process. The content of sulfides in the ore is from 0.5 to 5.0%. The pyrite-arsenopyrite mineral association is particularly characteristic for gold ore. Gold probes range from 680 to 740. Two geochemical associations of elements specific to the ore field - As-Au-Ag and Ni-Zn-Pb-Sb-Bi - have been identified. Where there is growth, there are definitely gaps. The Marjanbulak gold mining plant also has its own problems. One of them is that there is an oversupply and increasing amount of waste, as there

is in every metal-working enterprise. But that's not the whole problem. Perhaps some of the rare metals that remain in the waste are part of the problem. I would like to attach a tabular view of the results of the laboratory analysis of the Marjanbulak gold mine waste by the Jizzakh City Ecological Laboratory in September 2019 as proof of the problem.

September 2019 Summary

№	Наименование области, района, хозяйства, (отделение, бригада обьекта)	Дата отбора и анализа	ИНН	Площадь, га	pH	Гумус %	Глубина отбора см	Показатели и ингридиенты									
								а-у -ГХЦГХ	ддд,ддт ддт	Фосфор	Сульфаты	Марганец	Хром	Цинк	Медь	Железо	Хлориды	Нитраты
1.	Марджанбулакский рудник Южной рудоуправление НГМК	20.09.2019 23.09.2019	200779583															
	От 100 м				6,2	0.64	30			24,2	56	322	0,26	25,6	0,52	0,662	0,022	66
	От 1500 м				6,1	0,62	30			22,3	52	316	0,22	23,2	0,5	0,63	0,012	62

The table of mineral composition as a result of X-ray phase and microsonde analysis of MBZ-3 waste at Marjanbulak gold deposit is as follows:

#	Mineral. Alloy	Content %	#	Mineral. Alloy	Content %
1.	Quartz + opal	33.4 %	**17.**	Galenite	+
2.	Albit	7.2 %	**18.**	Nikelchromshpenemide	+
3.	Orthoclase	5.5 %	**19.**	Getit	+
4.	Glinminerali	41.2 %	**20.**	Hydrogetite	+
5.	Montmorillonite	1.7 %	**21.**	Bindgeymit	+
6.	Hydrosluda	93.6 %	**22.**	Ilmenit	+
7.	Kaolinite	4.7 %	**23.**	Rutile	+
8.	Calcium	1.6 %	**24.**	Apatite	+
9.	Dolomite	5.1 %	**25.**	Oyamolit	+
10.	Pyrite	1.9 %	**26.**	Zircon	+
11.	Phosphates	4.1 %	**27.**	Monatsit	+
12.	Ankerite + dolomite alloy	+	**28.**	Arsenopyrite	+
13.	Barite	+	**29.**	Graphite	+

14.	Pyrrhotite	+	**30.**	*	*
15.	Tetrahedron	+	**31.**	*	*
16.	Burnanite	+	**32.**	*	*

Scientists have come up with a special way to turn a landfill into a green space. Lami microbes create soil in the “dead” area where mining waste is deposited, as all loose rocks contain microorganisms capable of accumulating nitrogen. However, the number of these microbes is very small for reclamation, so they are grown in special sorting or special devices and placed on a plot of loose rock leveled with a bulldozer. As the microbes multiply, they form a new layer of soil. The number of lands reclaimed by microbes has reached hundreds of hectares. The method we want to introduce is to develop and put into practice future technologies for waste separation. It is safe to say that in the near future we will not see abandoned old deposits and landfills, which will be replaced by green lawns and trees.

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