

## ***THERE IS A LEADER IN COAL MINING***

What is the leader? The dictionary of Ozhegova makes following definition of this word: Whether-der - the one who goes in advance, the trailblazer? Speech also will go today about the leader in a hydraulic coal mining - research-and-production association? Hydrocoal? And its general director, Cand.Tech.Sci. Oleg Arkadeviche Atrushkeviche. This division of coal branch of Kuzbas sets now tone in nonconventional technologies of a coal mining, this ob-unification is some kind of the legislator in the new technics and technology, provodni ideas of absolutely new phenomenon in underground mining of coal deposits. But at first there are some history.

### **Dry extraction against the wet.**

By means of water scientists reflected on a coal mining for a long time. In the sixties in Novokuznetsk institute VnIgidrougol which became the founder of the theory and practice of a hydraulic coal mining in branch has been created All-Union research and the project-but-design. Scientists of that time with whom directed professor Vladimir Muchnik, conditions for advancement of a new method on the mountain enterprises have been created. Are constructed hydromine? Anniversary? concentrating factory? Kuznetsk?, sites at the mountain enterprises of Kuzbas and Donbass are presented. Unfortunately, offered by them then the method of processing of coal layers and has not found wide application for miners. It is too bulky, slow and expensive there was this technology. It was difficult to miners to refuse from decades of the debugged system of traditional dry system of a coal mining. And the hydraulic technology of scientists ВНИИгидроуголь gradually died, put for work with water sites have started to translate for a usual way of a coal mining. But the ideas put by that generation of scientists, have not been completely closed, they remained and as if waited for arrival of new times. And these times, really, have come. At institute VnIgidrougol there was a new generation of scientists. They have returned to those, already to poluzaby ideas, look at them from other positions and develop new approaches to a hydraulic coal mining. To explain an essence of their searches it is necessary to address to geological a system-niju of coal deposits on a planet. Tectonic movements of the earth have created millions years ago an interesting deal of coal layers. Somewhere they are located exactly, and other deposits are laid so randomly: that rise abruptly upwards fall sharply downwards leave aside. And, as ill-luck would have it, in these adjournment very valuable marks of power and coked coals are hidden. Unfortunately, the science and world practice was guided till now by a coal mining on so-called flat, that is exactly and layers directly lying underground, leaving out of a field of the sight the abrupt and broken layers. Anything surprising in it is not present, on flat layers it is convenient to work as mehanizirovanny complexes which are issued in our country and abroad. However, the foreign technics costs very expensively, its price is measured not by millions roubles, and dollars. But there's nothing to be done, coal in a life is necessary, and mines go on any expenses if only it to extract. Well, and how all the same with layers of abrupt falling where deposits vyso-kokachestvennogo coal, as it is known, are hidden? At worst miners while avoid them, leaving not-touched, in the best? Extract by means of an explosive when about any make-telnosti work cannot be and speeches.

### **The problem finds the decision.**

For the decision of a problem of a coal mining in the difficult it undertook mountain-geologiches conditions on-uchno-production association? Hydrocoal?, which general director jav-ljaetsja Cand.Tech.Sci. Oleg Arkadevich Atrushkevich. The thirty-year scientist became the author of essentially new hydraulic technology of a coal mining, prednazna-chennoj most of all for such conditions. And, he not simply offers idea, and displays-vaet in practice of advantage of this technology. For this purpose in Novokuznetsk it to sozda the special division? Research-and-production association? Hydrocoal?, the command of scientists from institute VnIgidrougol which it is possible to name is picked up? moz-govym the centre? Associations, the building company is organised? Фэсткол?, from which arrows to already constructed by it or still to under construction hydromines last. Such obra-zom, Oleg Arkadevich has solved the technology of a hydraulic coal mining in a complex: In the beginning work on idea, then creation of technics and other implementers of these ideas, building of the mountain enterprises. Then practical test of technology. I already said that in abrupt layers the most valuable marks energetiche-skih and coked coals are put. The majority of mines not only Kuzbas, but also Russia have such structure of coal deposits. Oleg Arkadevicha Atrush-kevicha's technology is that that absolutely sweeps aside all

former representation about a coal mining in general and on unsuccessful mountain-geological conditions, in particular. One of the main conditions of any coal mining is the technics. On? The dry? Mines today are used power- and the metal-consuming mechanised complexes not so convenient in work, it is necessary to mount, dismantle them. Oleg Atrushkevich has invented the combine. Unusual konst-ruktsija this car even close does not keep within habitual representation about pass-cheskoj and the clearing technics. First, the designer has left from traditional caterpillars on which all modern serial underground cars keep. It has put the combine on longitudinal and cross-section steel chassis. In front and behind the car has feet-racks with thorns and can walk forward, upwards, in both parties to depart back. Such konstruktsija allows to fulfil layers of the most abrupt falling. The basic working body consists from стреловидной designs with a rotating gear head in the end where the hose for water delivery is brought. The technology of work with this combine is surprisingly simple: the face breast is destroyed vra-shchajushchajasja by a combine head, and the coal weight under the big pressure of water going on a hose on trays directs downwards on the conveyor with inserted in it шпальтовыми si it. There it is dehydrated, enriched and stands out to the surface. In the mountain development passed thus, have time to establish only анкерную крепь. On change only four persons? The machinist of a combine and three крепильщика, not including two-three workers. The walking prohodchesko-clearing combine to which the author has given series КПА-3, can replace all scale of technical equipment on caterpillar to a course which worked till now underground. Uniqueness of this technology in its simplicity, mobility, possibilities. Also there are no now mountain-geological conditions where miners could not work with it. What does it mean? And it means that is made present technical revolution in the coal industry. Coal is enriched... Underground. Revolution, however, has occurred not only in the technician, but also in technology of a coal mining. The method of working out of coal deposits offered by Oleg Atrushkevichem in difficult mountain-geological conditions is convenient and favourable in every respect. In it pre-dusmotreno weight: and localisation of a coal dust, both airing, and water clarification, both dehydration, and enrichment. It would be desirable to tell about the last especially. In enrichment of coal the young scientist has made one more technical revolution. The matter is that any colliery predusmatriva-et building by a number of concentrating factory. These huge enterprises are usual companions of mines. In Oleg Atrushkevicha's technology of concentrating factory does not appear in general. There and then there is a question: and how without it to separate the breed lifted from a face from coal? Very simply? Oleg Arkadevich answers? Breed does not need to be lifted on on-verhnost, it should be left underground. And it is rather simple. The file of coal and breed a combine collapse consistently and with various fraction. The car sets a certain inclination of development and moves in-yes. It is quite enough these conditions to leave large pieces of breed in a face, and small are automatically excluded at water clarification. And, imagine, mines NPO? Hydrocoal?, working on new technology, you-give to the surface not coal, and a ready concentrate. Also there is it straight on коксохимические the enterprises. 400 thousand tons of such production association has put to the Kemerovo factory? Coke?, concentrate delivery metallurgical industrial complexes of Novokuznetsk wait. You-vedennye from добычной chains concentrating factories sharply reduce the cost price ug-lja. It in research-and-production association? Hydrocoal? Not above 70 roubles for ton well. And one more advantage of technology of Oleg Atrushkevicha - building. In a proshed-neck decade in Kuzbas has not been entered any new mine. The program restruk-turizatsii the coal industry did not provide such article in the budget. Closing of the unprofitable mountain enterprises Pred-relied only. That from this it turn out-lo, know not only miners. Miners, decades given to underground work, have been reduced, the coal mining in Kuzbas has swept for line of 100 million tons. Oleg Arkadevich Atrushkevich offers the way of the decision of this problem. On a place of the closed mines he recommends building of the small mountain enterprises by capacity of 600-800 thousand tons of coal in a year. Prohodchesko-clearing combines for them can be bought on mehani-cheskom factory NPO? Hydrocoal?, any other equipment for such mines, including telescopic перегружатели, platforms, conveyors here is issued. These mines without concentrating factories, the superficial complex consists of small administrativ th building in which are placed a dispatching office, some studies for ruko-drivers and счетных workers, a sink, a locker room and the main working object? esta-kady for giving of coal from a face. And all. Such mine can be constructed less, than for polgo-yes. It Also will manage cheaply, building can master any enterprise, and without state supports.?

### **The innovative technology? There is on break.**

Now in Kuzbas a building of the similar mountain enterprises goes at full speed. Already extract coal the mines put into operation? Нагорная-1? And? Нагорная-2?, building of mines comes to an end? Anzhersky-southern?? Konjuhtinsky? Eksperimentalth?, six more coal-fields in Kuzbas are taken under building. They are under construction in Khakassia, in the Far East. About cooperation with НПО? Hydrocoal? About-sjat miners of Moscow suburbs and other regions of Russia. Arrival шахтостроителей in expressional coal areas has the big social value, he will help to inhale with them a new life, to defuse

household tensions and under-njat coal mining level. And it means, to have money. With a great interest the governor of Kuzbas A.G.Tuleyev watches hydrogetters. New technology of a hydraulic coal mining of Oleg Arkadevicha Atrushkevicha it on-called? Also recommended to introduce widely it on mines of Kuzbas. After all minimines are under construction without the state grant, are under construction quickly, labour productivity on them high, and the coal cost price very low. The leader would not be the leader if has stopped on the reached. Oleg Arkadevich Atrushkevich is full of creative plans. Now the young scientist works over technology of a coming century, technology of which many generations of miners dreamt. It is a question of a deserted way of extraction of coal, fantastic in the beginning, it is already tested in laboratories of institute VnIgidrougol and at stands mechanical for-water. Is at it and the cores composed: prohodchesko-dobychnoj a combine with numerical about-grammnym management, other equipment. And in the beginning of the twenty first century Kuzbas will see the unknown: the coal mining in a clearing face will be conducted by cars-automatic machines.

***Michael Ershov Novokuznetsk the Newspaper "Siberian mark" №3, on February, 12th 2000.***